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ABSTRACT

The guide describes the educational system of Norway, primarily to assist in placement of Norwegian students in U.S. schools and for transfer of credits. An introductory chapter gives background about Norway and its people, educational governance, and language of instruction. The second chapter outlines the system of preschool, primary, and lower secondary education, including curriculum design and grading practices, and the third chapter describes aspects of the secondary system, its curriculum, grading, college matriculation requirements, apprenticeship training, and international baccalaureate. The bulk of the report is devoted to higher education including information on the academic year, financial aid, student services, governance, and the dual university/college system listing the requirements and institutional characteristics of each. The curriculum and degrees of each major field of study are also detailed. Additional chapters provide information on adult and correspondence education, international exchange programs and study abroad opportunities, and advice for admissions officers concerning transfer of credits and evaluation of credentials, and placement. Sample records and forms are presented within the text. Lists of trades in which apprenticeships are offered, with program length, and institutions in the formal higher education system are appended. A Norwegian-English glossary is also included. (MSE)

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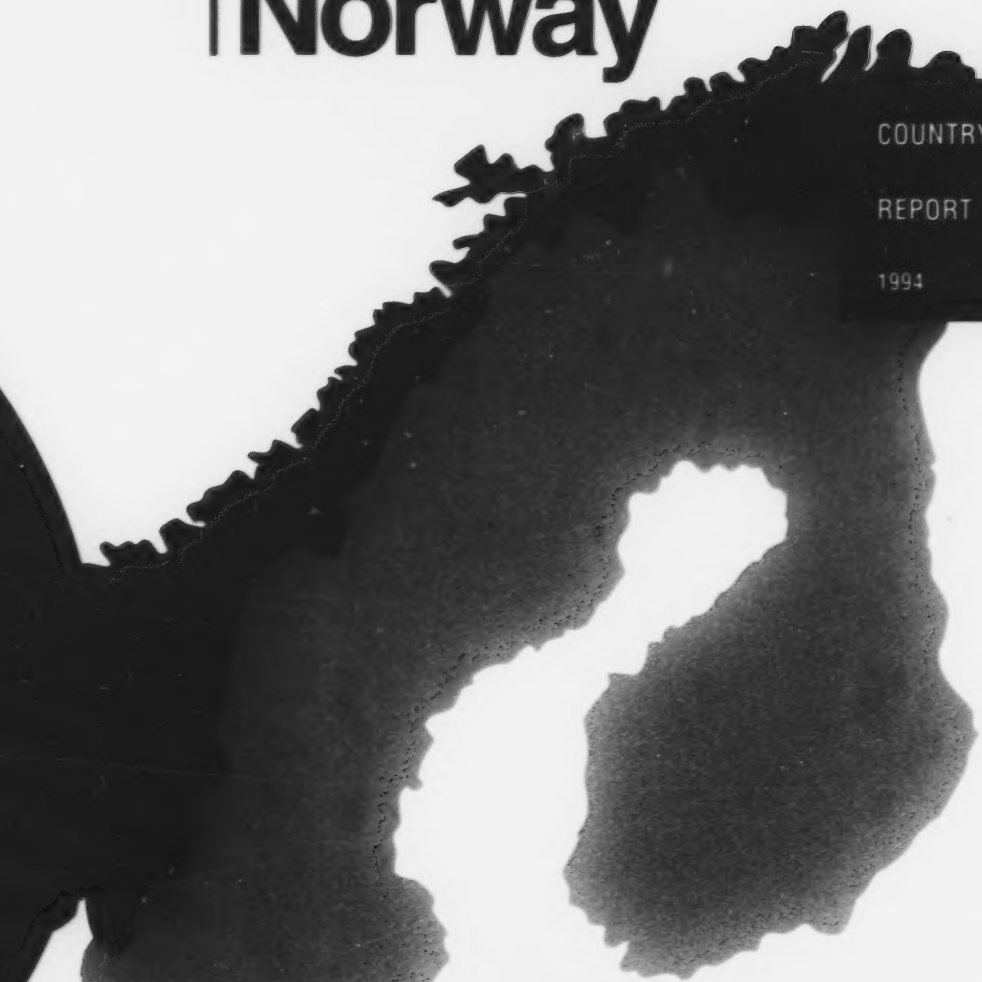
ED 399 870

Norway

COUNTRY REPORT 1994



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American Association of Collegiate Registrars and Admissions Officers

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PIER World Education Series

Norway

A Study of the Educational System of Norway and a Guide to the Academic Placement of Students in Educational Institutions in the United States

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COUNTRY REPORT 1994

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Contents

Acknowledgements x

Map of Norway xi

Diagram of the General Structure of the Educational System xii

Chapter I. Introduction 1
- Norway and Its People 1
- Introduction to the Educational System 1
  - Governance of Education 1
  - Language of Instruction 2

Chapter II. Preschool, Primary, and Lower Secondary Education 3
- Preschool Education 3
- Primary and Lower Secondary Education: The *Grunnskole* 3
  - Curriculum 3
  - Grading 3

Chapter III. Upper Secondary Education 5
- Legal Basis 5
- Admission to Upper Secondary School 6
- Documentation and Grading 6
- College and University Matriculation Requirements 7
- Curricula 8
  - The Areas of Study 8
- Apprenticeship Training 21
- *Teknisk Fagskole* (Technical School) 22
- Private Upper Secondary Schools 22
- International Baccalaureate 22

Chapter IV. Higher Education 26
- Overview of Higher Education 26
- Academic Year 26
- State Educational Loan Fund 26
- Student Welfare Organizations 26
- Supervision of Education 27
- Overview of Legislation and Transfer Credit 27
- A Dual System of Education: The University and College Sectors 28
  - Provisions for Academic Transfer Within Norway: The *Candidatus/Candidata Magisterii (Cand. Mag.)* Degree 28
- The University Sector 29
  - Universities and Specialized University-Level Institutions 29
  - Admission Requirements and Procedures 29
  - Grading at the Tertiary Level 32

Structure of Degree Programs 32
The Basic University Degree in Arts and Sciences 32
Faculties Offering the Basic University Degree in Arts and Sciences 34
Advanced University Degrees in Arts and Sciences 35
Professionally Oriented Degrees 35
Master's Degrees 36
Doctoral Degrees 36
The Universities 36
Universitetet i Bergen (University of Bergen) 38
Universitetet i Oslo (University of Oslo) 41
Universitetet i Tromsø (University of Tromsø) 42
Universitetet i Trondheim (University of Trondheim) 44
The College Sector 45
Admission Requirements 45
Grading at Colleges 46
Credentials Awarded by Colleges 46
Høgskolekandidat (College Candidate) 46
Credentials for a Specific Profession 46
Advanced Degree Programs 48
The *Høgskolesenter* (College Center) 48
Distriktshøgskolene (Regional Colleges) 53

Chapter V. Education by Fields of Study 56
Agriculture 56
Architecture 57
Business and Economics 57
Institutions Offering Business and Economics Programs 61
Education (Teacher Training) 65
College of Education Programs 65
Teacher Training Programs Offered at Other Colleges and Universities 70
Teaching Ranks 71
Engineering 71
The Professional Degree in Engineering 72
Doctoral Degrees in Engineering 76
The Degree of *Ingeniør* (Engineer) 76
Opportunities for Further Education for the *Ingeniør* 76
Other Programs for Engineers 77
Maritime Education 81
Safety Engineering 81
Fine Arts Education 82
Art and Design 82
Ballet and Dance 83
Music 84
Theater 86

Health Professions 86
Allied Health Sciences 86
Audiography 86
Bioengineering (Medical Laboratory Technology) 87
Interpreter's Education for the Hearing Impaired 87
Occupational Therapy 87
Physical Therapy and Mensendieck Physical Therapy 87
Prosthetics and Orthotics 89
Radiography 89
Dental Hygiene and Dentistry 89
Medicine 90
Nursing 91
Nutrition and Food Technology 94
Pharmacy and Prescriptionist Education 95
Public Health 96
Veterinary Medicine 96
Hotel and Restaurant Management and Training 97
Journalism 98
Law 98
Library Science 99
Military and Police Education 99
Physical Education and Sport 102
Psychology 102
Sociology; Social Work, Child Welfare, and Local Government Administration; and Social Education 103
Theology/Religious Studies 106

Chapter VI. Correspondence and Adult Education 111
Correspondence Education 111
Adult Education 111
Education in Norwegian Language and Culture 112

Chapter VII. Internationalization and Study Abroad Opportunities 113
Nordic Cooperation 113
International Programs 113
Study Abroad Programs for US Students 114

Chapter VIII. Advice for Admissions Officers 116
Upper Secondary School 116
Degrees and Diplomas 116
Grade Reports/Transcripts 116
Nasjonalt Koordinerende Utvalg/NKU (National Coordinating Commission) Recommendations 117
Role of the National Council on the Evaluation of Foreign Educational Credentials 118

Guide to the Understanding of Placement Recommendations 118
Placement Recommendations 121

Appendix A. Trades in Which Apprenticeships Are Offered and the Length of Each Program 146

Appendix B. Institutions in the Formal System of Higher Education 151

Norwegian-English Glossary 155

Useful References 158

Index 159

Tables

2.1. Allocation of Teaching Periods per Week in the *Grunnskole* 4
3.1. Normal Allocation of 45-Minute Teaching Periods in the General Studies Area Introduced in 1990-91 12
4.1. Different Study Combinations Leading to the University *Cand. Mag.* in the Faculty of Arts 37
4.2. Professionally Oriented Degree Programs 37
4.3. Master's Degree Programs, 1993 38
4.4. Doctoral Degree Programs, 1993: "New" Type 39
4.5. Profession-Specific Qualifications Awarded by College Sector Institutions With Years of Study Required 49
5.1. Summary of Teacher Training Requirements 66
5.2. Colleges of Education, 1993 68
5.3. Mechanical Engineering Curriculum Offered at Norges Tekniske Høgskole, Heating and Refrigeration Option 75
5.4. Institutions Awarding the Degree of *Ingeniør*, 1993 78
5.5. General Framework of Engineering Programs Leading to the Degree of *Ingeniør* 79
5.6. Other Programs Offered by Engineering Colleges, 1993 80
5.7. Institutions Offering Education in the Allied Health Sciences, 1993 88
5.8. Nursing Colleges With Specialties Offered, 1993 92
5.9. Institutions Offering Education in Child Welfare, Local Government Administration, Social Education, and Social Work, 1993 105

Charts

3.1.	Structure of Academic Programs in the *Videregående Skole*	11
3.2.	Area of Study for *Håndverks- og Industrifag* (Technical and Industrial Subjects), Mechanics Branch	15
3.3.	Tracks for Completion of Apprenticeship Programs	23
4.1.	General Structure of University Degrees	40
5.1.	Business and Economics Higher Education Institutions Offering Business and Economics Programs	62
5.2.	Technical and Engineering Education	73

Sample Documents

3.1.	*Vitnemål fra den Videregående Skolen* (Certificate from the Upper Secondary School)	7
3.2	Certificate of Upper Secondary Education, Area of Study for Commercial and Clerical Subjects: Advanced Course I-Office and Administration Branch (English Version)	14
3.3	Certificate Received at the End of *Grunnkurs* in the Technical and Industrial Subjects	16
3.4.	Certificate Received at the End of *Videregående Kurs I* in the Technical and Industrial Subjects	16
3.5.	Certificate Received at the End of *Videregående Kurs II* in Technical and Industrial Subjects	17
3.6.	Certificate from Upper Secondary School, Apprentices' School	24
3.7.	Certificate from a *Teknisk Fagskole* (Technical School)	25
4.1.	*Candidatus/a Magisterii (Cand. Mag.)* Degree Awarded by *Regionale Høgskoler* (Regional Colleges)	30
4.2.	*Candidata/us Magisterii (Cand. Mag.)* Degree Awarded by the University of Oslo (English Version)	31
4.3.	*Høgskolekandidat* from a Two-Year Program of Study	47
4.4	*Høgskolekandidat* from a Three-Year Program of Study	47
5.1.	*Sivilingeniør* Degree Awarded by the Norwegian Institute of Technology (English Version)	74
5.2	*Sivilingeniør* Degree Awarded by the University of Tromsø	74
5.3.	*Ingeniør* (Engineer) Degree Awarded by Trondheim Engineering College	77
8.1.	Certificate of Attendance, Official Transcript, Issued by the Faculty of Arts of the University of Oslo (English Version)	117

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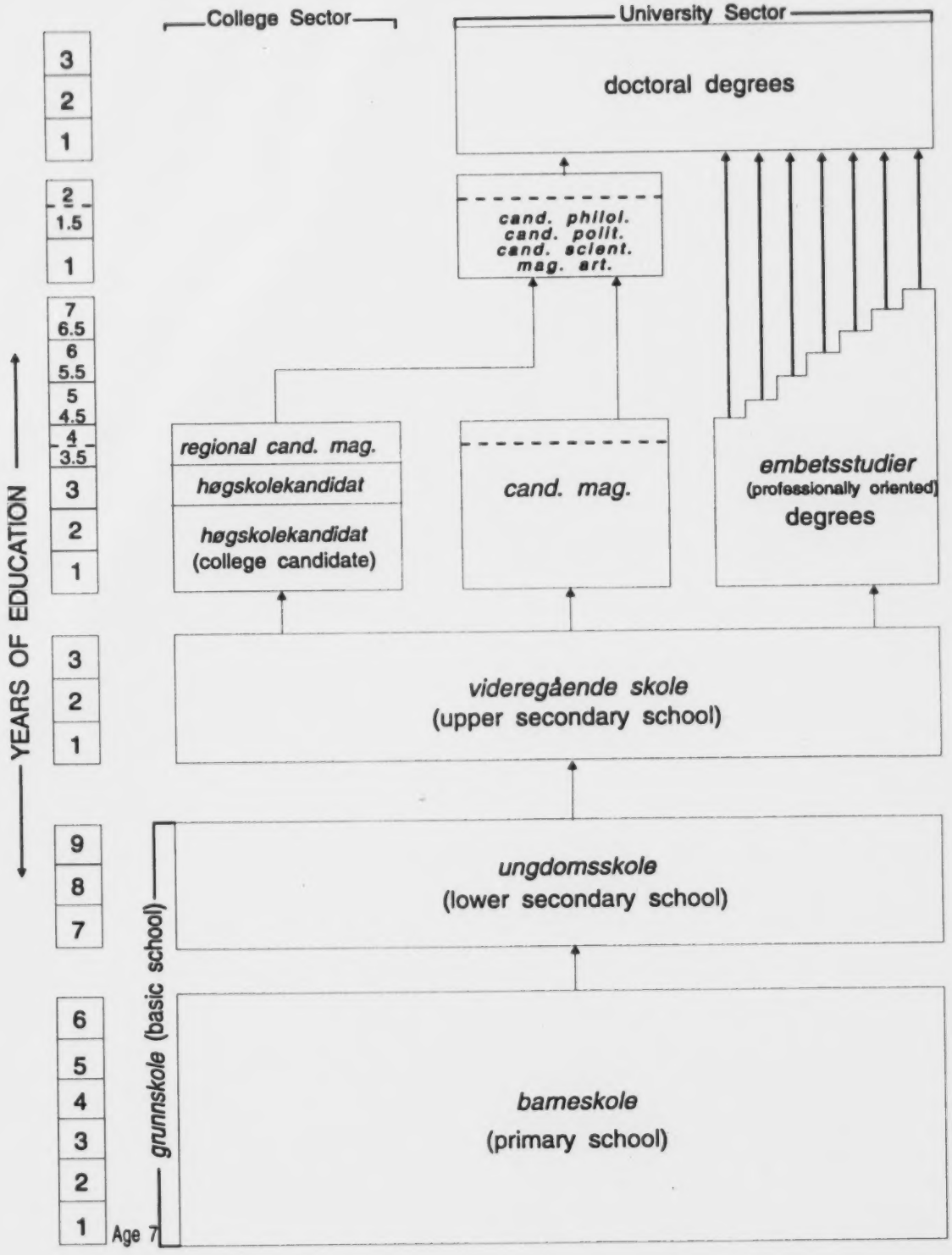
Map: Norway

ALTA
TROMSØ
NARVIK
BODØ
STEINKJER
LEVANGER
TRONDHEIM
MOLDE
ÅLESUND
VOLDA
FØRDE
SOGNDAL
RENA
LILLEHAMMER
GJØVIK
HØNEFOSS
BERGEN
OSLO
KONGSBERG
HORTEN
SARPSBORG
HAUGESUND
PROSGRUNN
HALDEN
STAVANGER
GRIMSTAD
KRISTIANSAND

General Structure of the Educational System



Chapter I
INTRODUCTION

Norway and Its People

The Land of the Midnight Sun, the Kingdom of Norway (Kongeriket Norge), is one of the five Nordic countries (Norway, Sweden, Finland, Denmark, and Iceland). Its total area is just over 125,000 square miles, slightly larger than the state of New Mexico. The extensive coastline including the fjords and major offshore islands is about 12,500 miles long (equal to half the distance around the world). One-third of the country lies north of the Arctic Circle. At its greatest length it is 1,100 miles; its greatest width measures only 270 miles. It is bordered by Finland, Sweden, and Russia. Though only 3% of the land is arable, Norway is a prosperous nation mainly due to large crude oil and natural gas reserves.

Norway has 19 counties *(fylke)*: Akershus, Aust-Agder, Buskerud, Finnmark, Hedmark, Hordaland, Møre og Romsdal, Nordland, Nord-Trøndelag, Oppland, Oslo, Rogaland, Sogn og Fjordane, Sør-Trøndelag, Telemark, Troms, Vest-Agder, Vestfold, and Østfold.

The capital city is Oslo with a population of 450,000. Other large cities include Bergen (220,000), Trondheim (190,000), Stavanger (99,000), and Tromsø (52,000). Seventy percent of the population of 4,247,000 (in 1990) live in urban areas. Although a majority of the people are primarily Norwegian, there is a racial-cultural minority of 20,000 Sámi (Lapps). Ninety-four percent of the Norwegian people subscribe to the religion of the state church, Evangelical Lutheran.

The two official languages are *bokmål* ("book" Norwegian), which has its roots in the Danish language, and *nynorsk* ("new" Norwegian) derived from the synthesis of several Norwegian dialects. In addition, the Sámi people speak Sámi. The country enjoys a literacy rate of 100%.

Norway's government is a constitutional monarchy. The present king is Harald V. The executive branch includes the monarch, a prime minister, and the State Council (cabinet). There is a two-house parliament (Storting) system: the upper house is the Lagting and the lower house the Odelsting.

Norway has been an independent country since 1905, when it gained its independence from Sweden. The constitution was declared on 17 May 1814. May 17 (Constitution Day) remains a national holiday.

Norway maintains three branches of the military: The Royal Norwegian Army, the Royal Norwegian Navy, and the Royal Norwegian Air Force. Compulsory military service for males lasts 12 to 15 months.

The Norwegian currency is the Krone (NOK) = 100 øre. The exchange rate with the US dollar in June 1993 was 6.7 NOK = US $1.00.

Introduction to the Educational System

The entire system of education in Norway, from primary education to higher education, is based on the principle of education for all and equal access to education. The government ministry responsible for education states that "One aim has primacy over all the others: that the education and training provided for everyone should be as equal and impartial as possible, independent of social and economic background, residence, gender, age, functional-skill, or ethnic background."

Governance of Education

The parliament controls all educational matters through the Ministry of Education, Research and Church Affairs with two exceptions. The Agricultural University of Norway and the Norwegian College of Veterinary Medicine are the responsibility of the Ministry of Agriculture. Preschool education, which is not part of the system of formal education,

is under the jurisdiction of the Ministry of Child and Family Affairs.

The educational system in the 1990s underwent a period of reorganization, from the composition of individual colleges to the national government's educational administration. In 1992 a Central Government Education Office was established in each county. Most of the National Advisory Council, which represented various sectors of the educational system to the Ministry of Education, Research and Church Affairs, including the National Council for Upper Secondary Education and the National Council for Basic Education, was abolished. The tasks they performed are now the responsibility of the Ministry, the National Center for Educational Resources, and the new Central Government Education Offices of the counties.

Language of Instruction

Beginning with primary school, students are instructed in the two official languages of Norway: *bokmål* ("book" Norwegian) and *nynorsk* ("new" Norwegian). Local educational authorities decide which language is the written language of instruction in the primary and lower secondary schools, but students in the upper secondary schools normally are instructed in both. Textbooks are written simultaneously in *bokmål* and *nynorsk*.

The Sámi (Lapp) people may speak Sámi as their first or second language, and Norwegian as their first or second language. Instruction in Sámi is available for students enrolled in primary and lower secondary education, and students have the right to use Sámi in examinations through the upper secondary level.

Compulsory study of English begins in grade 3 and continues through upper secondary school.

Chapter II

PRESCHOOL, PRIMARY, AND LOWER SECONDARY EDUCATION

Preschool Education

Preschool education is the responsibility of the Ministry of Child and Family Affairs and is not part of the system of formal education. Optional preschool education for children aged 1 through 6 is offered by *barnehager* (daycare centers or kindergartens).

Primary and Lower Secondary Education: The *Grunnskole*

Both primary education and lower secondary education are under the jurisdiction of the Ministry of Education, Research and Church Affairs. However, the day-to-day management of the schools is the responsibility of the local municipalities.

Nine years of education have been compulsory for children aged 7 to 16 since 1969. Until then only seven years of education were compulsory. In 1989, 100% of the age cohort was enrolled in compulsory education or the *grunnskole* (basic school). In 1994 Parliament voted that compulsory education would begin at age 6 by 1997. This extends the compulsory education period to 10 years.

The nine years of *grunnskole* are divided into two segments: six years of primary school (*barneskole*) and three years of lower secondary school (*ungdomsskole*). Teaching follows a standardized national curriculum. Each class is kept together with the same teacher throughout *barneskole*. In many cases, the class moves to another school at grade 7, but the students are kept together as a class unit. Grades may not be repeated, so class teachers must ensure that students are provided with instruction appropriate to their individual abilities.

An additional tenth year of education is offered by some lower secondary schools. While this is chronologically a tenth year of education, it does not lead to exemptions from coursework in the *videregående skole* (upper secondary school), which represents the tenth, eleventh, and twelfth years in the usual pattern of education. Students may enroll in this program to better prepare for upper secondary school or to complete additional studies if they do not intend to enroll in an upper secondary school program. Students may complete additional *grunnskole*-level elective subjects, or repeat previously studied subjects.

CURRICULUM

The national curriculum for *grunnskole* prepared by the Ministry of Education, Research and Church Affairs is provided in Table 2.1.

GRADING

Informal academic assessments are provided to parents or guardians at least twice per year for students in grades 1 through 6. Students in grades 7 through 9 are assigned grades for compulsory subjects and a final nationally prepared written examination is administered. Successful completion of compulsory education results in the award of a *vitnemål fra grunnskolen* (certificate from basic school).

The grading scale used in lower secondary school is as follows:

6	*særs godt*	*sg*	excellent
5	*meget godt*	*mg*	very good
4	*godt*	*g*	good
3	*noksd godt*	*ng*	passable
2	*lite godt*	*lg*	barely passing
1	*ikke godt*	*ig*	failure
	deltatt		participated

Table 2.1. Allocation of Teaching Periods per Week in the *Grunnskole*

Subject	Primary Stage			Lower Secondary
Years	1-3	4-6	Total 1-6	7-9
Religious Instruction	6	6	12	6
Norwegian	20	16	36	14
Mathematics	14	11	25	11
English*	3	7	10	9
Civics	6	15	21	—
Social Studies	—	—	—	9
Natural Science	—	—	—	8
Music	3	6	9	3
Arts and Crafts	4	12	16	5
Physical Education	4	6	10	8
Home Economics	—	—	3	3
Optional Subjects**	—	—	—	11
Subtotal	60	82	142	88
Course Determined by Local Schools	—	—	5	—
Total	60	82	147	88
Practical, Social and Cultural Work	50§	75§	125§	150§
Pupil and Class Council	30§	60§	90§	2

Source: Ministry of Education, Research and Church Affairs, 1993.

*English as a foreign language is at present introduced in the third grade, or at the age of 9.

**A second foreign language is no longer compulsory but is offered as an optional subject at the lower secondary stage. Although optional, aims and specifications for the second foreign language are indicated for Finnish, French, German, and Spanish. At present, about 40% of pupils in lower secondary school opt for a second language, mainly German or French.

§Total number of weekly hours of weekly lessons in a three-year period. The activities are integrated into all subjects.

Chapter III
UPPER SECONDARY EDUCATION

Upper secondary education consists of both academic and vocational studies, including apprenticeship training, which is offered beyond the nine years of compulsory education. It encompasses the tenth, eleventh, and twelfth years of formal education, and, on occasion, a thirteenth year in vocational fields. Typically students aged 16 to 19 attend, although it is open to older students who wish to complete or continue their education. Some students also complete studies at this level while under apprenticeship contract with a company.

The academic calendar in upper secondary school consists of 190 days, or 38 five-day weeks. There are 30 to 35 forty-five minute periods per week, depending on the curriculum followed.

Legal Basis

Programs offered in *videregdende skole* (upper secondary school) are under the jurisdiction of the Ministry of Education, Research and Church Affairs. The Ministry establishes basic policy, acts on entrance requirements, establishes the fields to be taught, determines teaching salaries and loads, and sets curriculum guidelines.

Each county is responsible for providing upper secondary education and following Ministry policies and guidelines. The county government annually lets each school know how many programs and how many student places the school will have in the coming year.

The aim of upper secondary education is to "... prepare students for work and for service in the community, provide a basis for further education, and support the individual student's personal development .... [It] shall contribute to increased awareness and understanding of fundamental Christian values, our national heritage, democratic ideals and scientific thought and method .... [It] shall promote equal rights and equal opportunities, intellectual freedom and tolerance, ecological awareness and international co-responsibility." (Upper Secondary Education Act of 1974)

In 1976, following the Upper Secondary Education Act of 1974, all academic secondary schools, trade schools, commercial schools, domestic science schools, schools of arts and crafts, and maritime schools providing pretertiary education were combined into one unitary school system—*videregdende skole* education—for students over 16 years of age who had completed compulsory education. In 1990 the schools of agriculture were also incorporated into this structure.

Students enrolled in *videregdende skole* programs could prepare for admission to higher education or for a vocational qualification. General and vocational courses were often offered in the same school and could in some cases even be combined within the same program. Until complete implementation of the Upper Secondary Act of 1974, the *examen artium* was awarded upon completion of university-preparatory upper secondary education; a variety of vocational credentials were awarded upon completion of vocational and technical education.

Upper secondary education reform, which was implemented in the school year 1994-95, was prompted by the fact that many vocational study programs did not provide for sequential three-year education; coordination between vocational schools and employers was poor; the study of general subjects in vocational programs was meager; and the many options offered were complicating and confusing the system.

The main points of the reform are:

1. All young people, aged 16 to 19, have a statutory right to three years of upper secondary education. Young people who are disabled have the right to more than three years of training. The counties must guarantee that sufficient school places are available. Each county is required to establish a follow-up service for those aged 16 to 19 who are outside the normal educational

system (e.g., those who are unemployed, not in an apprenticeship, or left school mid-year).

2. During the first year of upper secondary school, students will choose from 13 foundation courses rather than from the more than 100 previously offered.
3. Coordination between vocational training in school and on the job will improve. The basic model of vocational training will include two years of in-school training followed by up to two years of specialized on-the-job training.
4. All areas of study will provide education leading to a specific qualification: either college or university matriculation for students completing an academic program or a craft certificate for students completing a vocational program.

Admission to Upper Secondary School

Upon completion of the nine years of compulsory basic school (*grunnskole*), students are not guaranteed admission to any upper secondary program, although 90% enter some program. Students must apply to one or more of the 10 areas of study, both general and vocational. They are admitted on the basis of grades received in compulsory school, plus supplementary points given for age, practical experience, and further education. Beginning in 1994 all students have the legal right, but not obligation, to three years of upper secondary school; it is expected that 95% of all students will attend all three years.

One to 5 supplementary points are given for the 11 obligatory subjects, depending on the grade achieved. Students who completed compulsory school in the current or previous year receive 4 points; those who finished two years ago receive 1 point, three years ago 2 points, and four years ago 3 points. Extra points are given for up to three years of practical experience, military or civilian service, or attendance at courses in *folkehøgskole* (folk high school). (See Chapter VI.) A maximum of 6 supplementary points from all sources can be granted.

Those students admitted to the first year of a vocational upper secondary program must reapply to continue in the second and third years of study and again compete for admission on the basis of points for grades, practical experience in the vocational area, and satisfactory completion of prerequisites. Many vocational branches do not have enough places for all students to continue their education. Students often opt to enter into apprenticeships at this point. Students may also take an unlimited number of first-year foundation courses sequentially in several different study areas and branches.

Documentation and Grading

The *vitnemål fra den videregående skolen* (certificate from upper secondary school) is awarded upon successful completion of upper secondary school. The *examen artium* formerly awarded by academic upper secondary school was discontinued in 1984.

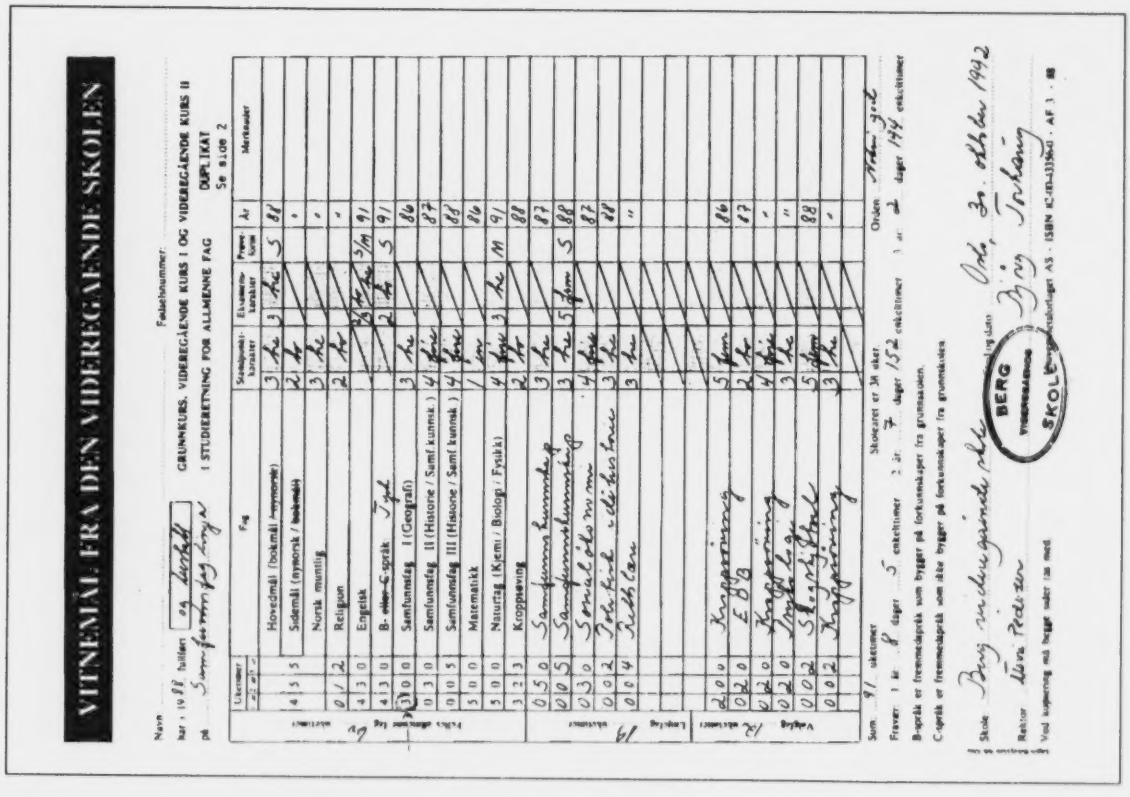
The *vitnemål* is common to all upper secondary schools. The certificate—issued in Norwegian (either *bokmål* or *nynorsk*), English, French, or German—states the area of study in which the student was enrolled and lists all subjects studied and grades received throughout the program.

It also lists the required subjects *(felles allmenne fag)* and electives *(valgfag)* (see sample document 3.1). The student's name *(navn)* and national number *(Fødselsnummer)* are on the first line. The date of graduation is listed next, followed by *fullført* (completed). Then a shaded box in which the words *og bestått* or *og greidd* (and passed) must appear to indicate the student has passed the full program. Students who attended and did not pass have the same certificate, but the shaded box is either blank or has a diagonal line drawn through it.

Hours per week are indicated in the column headed *Uketimer* for each of three years (*1 år, 2 år, 3 år*). The numbers below each year show the number of hours per week required for the subject. A single document listing enrollment in all three years is used for the *allmenne fag* (general studies) curriculum. Documents for each year of study are issued for the *handels- og kontorfag* (commercial and clerical subjects) curriculum. Documents from the other areas of study appear in either format.

The other column headings are *Fag* (Subject); *Standpunktkarakter* (Grade in the School); *Eksamenskarakter* (Grades from National Examination); and *Prøveform* (Type of Examination), either *muntlig*/M (oral), *skriftlig*/S (written), or *praktisk*/P (practical). The letter K for *kombinert* (combined) may be used for examinations that are both written and oral. *År* (Year) indicates the year that grade was given or the examination was taken.

The *År* (year) column is very important in understanding the student record. After leaving upper



VITNEMÅL FRA DEN VIDEREGÅENDE SKOLEN

Document 3.1. *Vitnemål fra den Videregående Skolen* (Certificate from the Upper Secondary School)

secondary school, students may improve their grades and have their record changed by attending private tutoring schools and retaking the national examination in any subject. When they present the national examination certificate to the school they attended, their new grades are entered and the original grades deleted. The only clue to this change in grades is the year in which the examination was given. Sample document 3.1 shows the student started school in 1985 and completed studies in 1988. The record shows grades given in three subjects (English, German, and Natural Sciences) in 1991. These are from national examinations in those subjects taken three years after the completion of upper secondary studies. Normally when the new grades are entered, the *standpunktkarakter* is deleted (in this particular sample, it was not).

National examinations are offered in all subjects in all three years of study. Not all students, however, take national examinations in all subjects. The Ministry notifies the school of the number of students who will take different subject examinations. Groups of students are randomly assigned to sit the examinations, though all students must sit the national written examinations in both *bokmål* and *nynorsk*. Students usually sit for one additional national examination in a general studies subject.

Separate grades are given for overall achievement in the class (*standpunktkarakter*), and for the national examinations (*eksamenskarakter*) taken. The national examinations are prepared and corrected by a separate commission of examiners, who are usually experienced teachers. Students who fail a subject must reapply to continue in the next year of study and will only be admitted if there are extra spaces. Information on grading appears on page 8.

College and University Matriculation Requirements

To qualify for basic college and university matriculation, students must complete a certain number of hours per week in specific subjects all three years of study. These are usually taken in a foundation course and advanced courses I and II, although other routes for matriculation exist.

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Under consideration is the proposal that the following subjects be studied over three years for the number of weekly hours noted in parentheses: Norwegian (14), English (5), mathematics (5), social sciences (6), and natural sciences (5), plus one year of study in each of six other subjects, including a second foreign language. The curricula in the areas of study that automatically fulfill these matriculation requirements are *allmenne fag* (general studies) and *handels- og kontorfag* (commercial and clerical subjects). Students completing educational programs in any of the other areas of study may qualify for matriculation by taking additional coursework.

Medical programs, for example, impose additional entrance requirements in mathematics and natural sciences; and some specialized programs in the tertiary sector require different matriculation requirements. Students who have completed an upper secondary program in a related field may qualify for entrance into a program without satisfying all of the normal matriculation requirements.

Curricula

Through the 1993-94 academic year, upper secondary education was divided into 10 areas of study, which were further divided into more than 100 branches of specialization. The system has been restructured for implementation in 1994. The 10 areas of study will be divided into only 13 broader branches of specialization in 1994. See "The Areas of Study" below.

Some of these programs qualify a student to matriculate in tertiary-level institutions. Other programs provide training for a professional examination in a vocational field, which, if successfully completed, permit the graduate to practice the specific vocation or trade. A few programs provide both matriculation and vocational training.

The Areas of Study

The 10 areas of study offered in the *videregående skole* (upper secondary school) through 1993-94 are: *allmenne fag* (general studies); *fiskerifag* (fishing trade subjects); *handels- og kontorfag* (commercial and clerical subjects); *håndverks- og industrifag* (technical and industrial subjects); *husflids- og estetiske fag* (crafts and aesthetic subjects); *husholdningsfag* (home economics subjects); *idrettsfag* (physical education subjects); *landbruks- og naturfag* (agricultural and rural subjects); *sjøfartsfag* (maritime subjects); and *sosial- og helsefag* (social studies and health subjects).

Within the 10 areas of study, each of the more than 100 specific training branches has its own foundation course. A number of these branches do not offer three-year programs. Instead they offer partial upper secondary education in one- and two-year programs.

Grading Scale in Upper Secondary School

Norwegian Term	Abbreviation	English Translation	Number		% of Students	Suggested US Equivalent
saerdeles tilfredsstillende	*s.tf.*	excellent	6	*seks*	2.1	A+
meget tilfredsstillende	*m.tf.*	very good	5	*fem*	13.6	A
tilfredsstillende	*tf.*	satisfactory	4	*fire*	24.3	B
noenlunde tilfredsstillende	*ng.tf.*	passable	3	*tre*	27.3	C
mådtelig	*mdt.*	barely passing	2	*to*	20.2	D
ikke tilfredsstillende	*ik.tf.*	failure	1[1]	*ett*	9.6	F
-	-	(no grade)	0	*null*	2.9	F
deltatt	*delt.*	participated	-	-	-	Satisfactory

[1]A grade of 1 was passing in either the B or C language in the *samfunnsfaglinje* (social sciences line) or *naturfaglinje* (natural sciences line) until 1986 (see Table 3.1).

With the reforms implemented in 1994, the number of one-year foundation courses being offered has been reduced to 13, each leading to two additional years of sequential upper secondary education. The 13 new foundation courses are:

1. *allmenne- og økonomisk-administrativ fag* (general and business studies)
2. *byggfag* (building and commercial trades)
3. *elektrofag* (electrical trades)
4. *formgivingsfag* (arts, crafts, and design studies)
5. *helse- og sosialfag* (health and social studies)
6. *hotell- og næringsmiddelfag* (cooking, waiting, and food processing trades)
7. *idrettsfag* (sports and physical education)
8. *kjemi- og prosessfag* (chemical and processing trades)
9. *mekaniske fag* (engineering and mechanical trades)
10. *musikk, dans og drama* (music, dance, and drama)
11. *naturbruk* (agriculture, fishing, and forestry studies)
12. *tekniske byggfag* (service and technical building trades)
13. *trearbeidsfag* (carpentry)

In 1992, 40% of the students followed the general studies track. Twenty-four percent selected technical and industrial subjects. A little over 18% chose commercial and clerical subjects. The remaining 18% percent were divided among the other seven areas of study. Social studies and health were the most popular, and the fishing trade the least popular.

In most cases, the areas of study and their branches have the same basic structure. A one-year foundation course program (*grunnkurs*) is followed by a two-year advanced course program, referred to as advanced course I and II (*videregående kurs I/VK I* and *videregående kurs II/VK II*), for a total of three years of study. A two-year *(toårig)* foundation course is followed by a one-year advanced course *(VK I)*, which may also be referred to as a *påbygningskurs* (supplementary course), also for a total of three years of study. In a few vocational areas an advanced III course program (*videregående kurs III* or *VK III*) represents a fourth year of upper secondary education.

A few branches in the crafts and aesthetic subjects area offer a half-year foundation course, which does not give access to the advanced courses in the area of study. Many foundation courses in vocational areas of study can be taken as two-year foundation courses. Students can combine subjects from the general studies area with subjects from the chosen vocational area, and increase their options for tertiary academic study or specific vocational training.

Upon completion of a two-year foundation course, students can proceed with either general or vocational education, i.e., to advanced course I in the vocational area of study or to a one-year course in general studies or an advanced course I in general studies. Chart 3.1. shows the various *videregående skole* routes.

Specific requirements of each of the 10 areas of study offered through 1993 follow in alphabetic order according to the Norwegian terms.

1. The *allmenne fag* (general studies) subject area emphasizes the study of theoretical subjects, and, in comparison to other areas of upper secondary education, best prepares students for higher education in most academic fields. Twenty hours of common core subjects are completed over three years. All students follow the same foundation course, which consists of common core subjects: Norwegian, English, B- or C-language (see Table 3.1 for an explanation of B- or C-language), mathematics, physical education, religion, social sciences and natural sciences. In advanced courses I and II, students elect an area of study (languages, natural sciences, social sciences, or music) and choose optional subjects in any of the areas, in addition to the compulsory common core subjects that continue from the foundation course.

   Over three years, students spend a total of at least 20 hours per week on the area of study subjects. At least one of the area of study subjects is studied in both advanced courses I and II for 8 hours (minimally). Students complete at least 90 hours over the three years. Successful completion of the general studies area qualifies the student for college or university matriculation. Table 3.1 shows the allocation of teaching periods in the general studies area.

   Sample contents of the mathematics and physics subjects follow:

   - Mathematics Year 1 (1MA) - 1MA, compulsory for all students in the general studies area, includes arithmetic, algebra, and theory of functions.
   - Mathematics Year 2 (2MN and 2MS) - 2MN (mathematics for natural sciences) focuses on topics important for chemistry, biology, and physics. It is offered five periods per week and covers algebra, theory of functions, vector calcu-

lus, and trigonometry. 2MS (mathematics for social studies) covers algebra, theory of functions, and descriptive statistics. It is offered either for five periods per week in year 2, or for two hours per week in year 2 plus three hours per week in year 3.

- Mathematics Year 3 (3MN and 3MS) - 3MN is a continuation of 2MN. It covers geometry, theory of functions, and algebra. 3MS is a continuation of 2MS and includes theory of functions and either probability or computing science.

  Elective specialized study in mathematics is available in years 2 and 3 in areas such as electronic data processing, differential equations, mathematical logic, projection drawing, probability calculation, series, complex numbers, matrices and determinants, history of mathematics, theory of cones, history of relativity, and mathematics for economists.
- Physics Year 2 (2FY) - 2FY topics include mechanics, thermophysics, light and waves, atomic physics, nuclear physics, electricity, and probability. This subject may be taken either for five periods per week in year 2 or over years 2 and 3 in three periods per week in one year and two periods per week in the other year.
- Physics Year 3 (3FY) - 3FY topics include mechanics, radiation physics, relativity, quantum physics, astrophysics, and probability. This subject is taken for five periods per week. Prerequisites include 2MN and 2FY.

2. The *fiskerifag* (fishing trade subjects) area of study offers training for work in the fishing industry. All three branches can provide three years of training, consisting of a foundation course and advanced courses I and II. There is also a coastal industry foundation course. Certificates may be obtained at the end of each year of study. None of the branches satisfy university matriculation requirements without further study.
   - The fish and fishing branch qualifies graduates for employment both as a fisherman and as a seaman. Students can take examinations that lead to a *fagbrev* (vocational certificate). Practical experience is necessary for acceptance into advanced course II.
   - The aquaculture branch qualifies students for employment in fish and shellfish production on completion of advanced course I. Advanced course II leads to qualifications in marketing of fish and shellfish and to further studies in the area.
   - The fishing industry branch qualifies students for employment in different areas of the fishing industry and for work in other industries related to food production.
3. The *handels- og kontorfag* (commercial and clerical subjects) area provides three years of education in administrative and economic subjects. Each year forms a complete unit with its own examination and separate diploma. See sample document 3.2.
   - The foundation course is common to all students and is structured as follows, with periods per week noted in parentheses: Common Core Subjects—Norwegian (3), and Physical Education (2); Area of Study Subjects—Accounting (4), Mathematics (3), Civics and Business Study (3), Correspondence and Documentation (2), Typing (4), and English (3); Optional Area of Study Subjects—Practical Clerical Skills or Practical Retailing Skills (5); and Optional Subjects (3), for a total of 32 periods per week.
   - Advanced course I is divided into two branches: Business and Economics, and Office and Administration. (See course contents in sample document 3.2.)
   - Advanced course II has five branches: Accountancy (bookkeeping), marketing, data and information processing, tourism and languages, and public administration. The course has three components: Common Core Subjects—Norwegian and Communication (4), Organization Theory (3), English (3), Economics (3), Physical Education (2); Branch Subjects in the area of specialization, usually built on advanced course I work (15); and Optional Subjects (2 or 3).

     Successful completion of advanced course II qualifies the graduate for entrance to university studies and other tertiary-level academic programs as well as a vocational qualification in the field.
4. The *håndverks- og industrifag* (technical and industrial subjects) area of study provides practical and theoretical training for many occupations within the manufacturing and service industries. A greater variety of courses is offered in this area of study than in any other area of study.
   - Up until the school year 1993-94, there were 60 to 70 foundation courses. A number of these

Chart 3.1. Structure of Academic Programs in the *Videregående Skole*

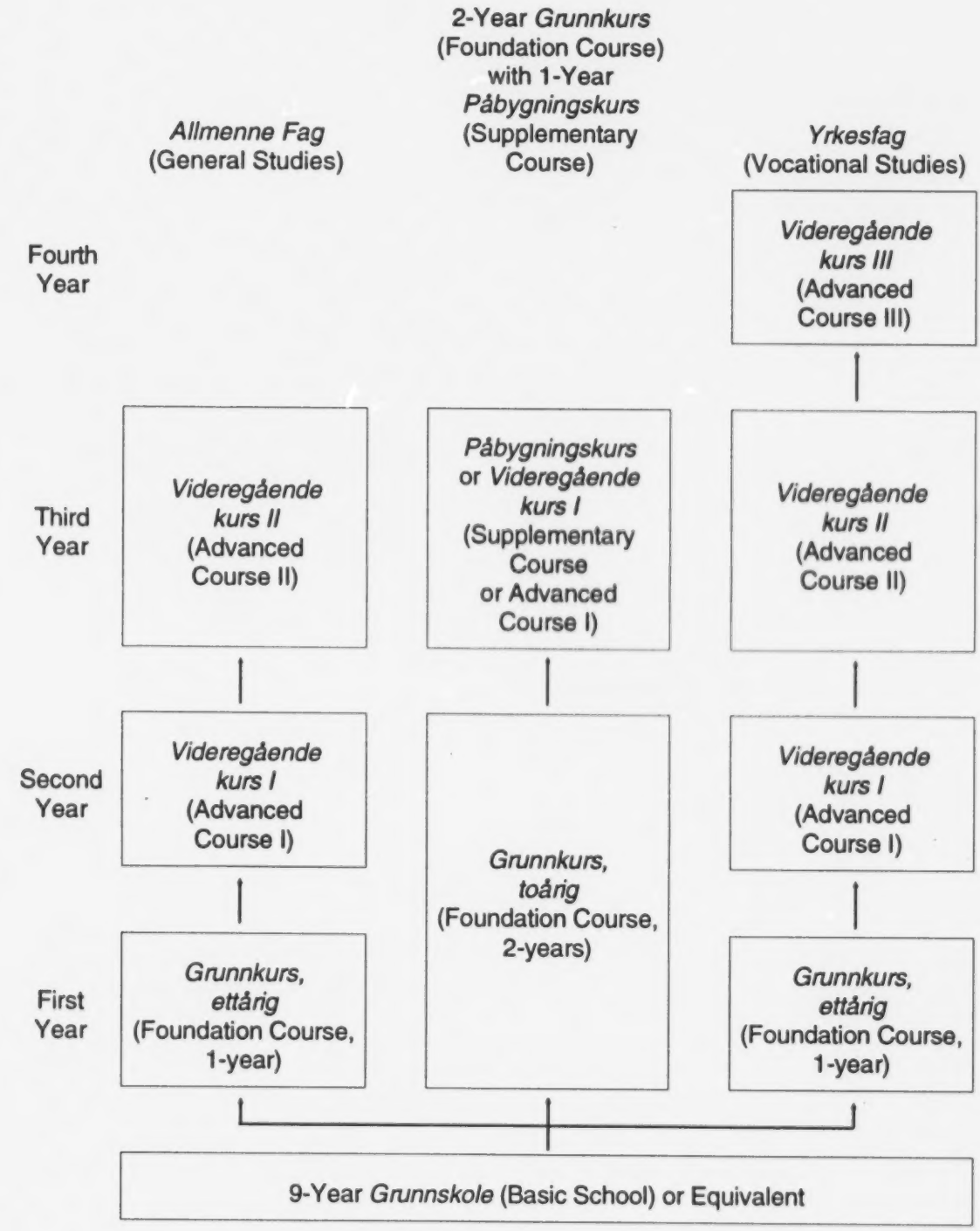

2-Year Grunnkurs (Foundation Course) with 1-Year Påbygningskurs (Supplementary Course)
Allmenne Fag (General Studies)
Yrkesfag (Vocational Studies)
Fourth Year
Videregående kurs III (Advanced Course III)
Third Year
Videregående kurs II (Advanced Course II)
Påbygningskurs or Videregående kurs I (Supplementary Course or Advanced Course I)
Videregående kurs II (Advanced Course II)
Second Year
Videregående kurs I (Advanced Course I)
Grunnkurs, toårig (Foundation Course, 2-years)
Videregående kurs I (Advanced Course I)
First Year
Grunnkurs, ettårig (Foundation Course, 1-year)
Grunnkurs, ettårig (Foundation Course, 1-year)
9-Year Grunnskole (Basic School) or Equivalent

Table 3.1. Normal Allocation of 45-Minute Teaching Periods in the General Studies Area Introduced in 1990-91

Common Core Subjects	Year		
	1	2	3
Norwegian/*Norsk*	4	5	5
Religion/*Religion*	0	0	3
A-Language*/*A-språk*	5	0	0
B-Language*/*B-språk*	4	4	0
C-Language*/*C-språk*	4	4	4
Social Studies/*Samfunnslære*	2	0	0
Geography/*Geografi*	0	3	0
History up to 1850/*Eldre historie*	0	3	0
Modern History/*Nyere historie*	0	0	4
Science/*Naturfag*: Biology, Chemistry, Physics	5	5	0
Mathematics/*Matematikk*	5	0	0
Physical Education/*Kroppsøving*	3	2	3
Total Core Subjects with B-Language	28	17	15
Total Core Subjects with C-Language	28	17	19
Optional Subjects/Study Area Subjects with B-Language	2	13	15
Optional Subjects/Study Area Subjects with C-Language	2	13	11
Total Teaching Periods per Week	30	30	30

*A-language = first foreign language (English); B-language = second foreign language based on introductory course taken in lower secondary school; C-language = foreign language for beginners. All students must study two foreign languages. The alternatives are either A-language English, 3 periods; B-language, 5 periods; or C-language, 4 periods. This requirement can be exempted if the student has taken elective study area subjects which, in combination with compulsory subjects, total at least 28 periods, e.g., mathematics (5+5); physics (5+5); and biology (5+3).

could be taken as two-year foundation courses that combine vocational subjects and general studies. The most popular foundation courses are in electricity and electronics, mechanical subjects, hairdressing, sewing, carpentry, building and construction, the graphic arts, and technical drawing. A number of foundation courses combine different subject areas, e.g., electronics and mechanical subjects.

- Because training is aimed at specific trades, specialization often begins in the foundation course; therefore, the choice of advanced course I is limited by the student's previous choice of foundation course. There are about 100 courses at advanced course I level and approximately 50 courses at advanced course II level. A few subjects also have courses at advanced course III level. Chart 3.2 shows the breakdown of study in the mechanics branch and the options students have over a three-year period.

Graduates of the technical and industrial subjects study area are only qualified for univer-

sity matriculation if they take the general studies advanced course I in their third year and cover the required university prerequisites. If students take the advanced course I vocational course, they may be eligible to enter an *ingeniørhøgskole* (engineering college). However, a preparatory course in academic subjects may be required. They are qualified for admission to *tekniske fagskolen* (technical schools), described below. See sample documents 3.3, 3.4 and 3.5 for certificates received at the end of each year of study in *håndverks- og industrifag* (technical and industrial subjects).

5. The *husflids- og estetiske fag* (crafts and aesthetic subjects) area was under extensive review in 1991-93. There was formerly a domestic handicraft branch offered in many schools, plus four specialized branches: dance and ballet, drama, crafts, and music. In 1992 the domestic handicraft branch was merged with the crafts branch. The foundation course for crafts will become the same basic course offered to students in the technical and industrial subjects study area. In 1994 this study area was renamed *formgivingsfag* (arts, crafts and design studies).

There are several foundation courses.

- The general foundation course prepares students for advanced courses in visual communication, color analysis, and form. Weekly 45-minute courses (with the number of periods noted in parentheses) are: Art and Art History (2), Color (4), Drawing (6), Form (4), Materials (6), Norwegian (4), Physical Education (2), Social Studies (2), and Electives (3) for a total of 33 periods per week.
  - One-year foundation courses are also offered in sewing and textiles, drawing, forms and color. These specialized foundation courses prepare students for advanced work in related subjects.

    A two-year foundation course combines drawing, form, and color with drama and music. The program is as follows (with periods in years 1 and 2, respectively, indicated in parentheses): Art and Culture History (0/4); Civics (2/0); Drama (3/3); Drawing, Form, Color (6/6); English (5/0); Geography (0/3); History to 1850 (0/3); Music/Rhythm (2/2); Norwegian (4/5); Physical Education (2/2); Science and Materials (2/3); and Electives (9/4) for a total of 35/35 periods per week in years 1 and 2, respectively.

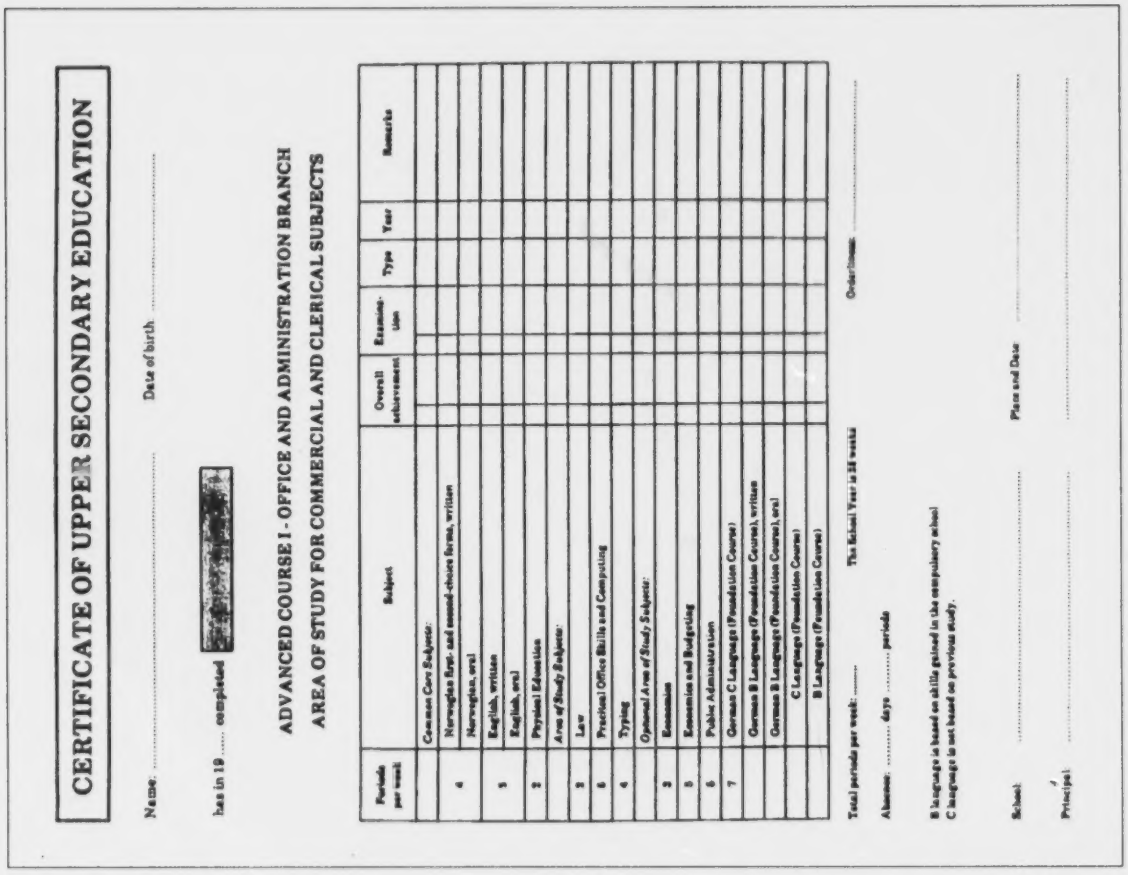
    On completion of the two-year course, students can further their education in the course in drawing, form, and color, or the general studies advanced course I, if they have taken the requisite mathematics course and a second language. The supplementary course in drawing, form, and color comprises the following: Art and Culture History (4); Drama (3); Drawing, Form, Color (11); Music/Rhythm (2); Norwegian (5); Physical Education (2); Religion (3); Social Studies (4); and Electives (1) for a total of 35 periods per week.

    Completion of a two-year foundation course plus a supplementary course (*påbygningskurs*) qualifies students for admission to university studies if the students have taken the requisite mathematics course, a second foreign language and one additional subject from the general area of studies in both advanced courses I and II.
  - Advanced course I is based on the foundation course, but offers more specialized education. Courses are offered in the following subjects: drawing, design, and color; sewing and textiles; weaving and knitting; woodcarving and metalwork; visual communication (interior design and customer guidance); and activity leadership.
  - Advanced course II leads to full specialization in the chosen area. There is also a one-year concentrated course in weaving for students who have completed the three years of the general studies area.

Study in the branches of music, ballet and dance, and drama are offered at very few secondary schools in Norway. Each branch has its own structure, described below.

The *Music Branch* offers a two-year foundation course which includes 45-minute periods of study per week in years 1 and 2, as follows: Coaching Theory and Anatomy (1/1); Electives (9/4); English (5/5); Geography (3/0); History to 1850 (0/3); Music (11/15); Norwegian (4/5); Science (5/0); and Social Studies (2/0) for a total of 40/33 periods per week in years 1 and 2, respectively.

The two-year foundation course in music gives access to the supplementary music course



CERTIFICATE OF UPPER SECONDARY EDUCATION

Name: ..... Date of birth .....

has in 19..... completed

ADVANCED COURSE I - OFFICE AND ADMINISTRATION BRANCH
AREA OF STUDY FOR COMMERCIAL AND CLERICAL SUBJECTS

Periods per week	Subject	Overall achievement	Examination	Type	Year	Remarks
	Common Core Subjects:					
4	Norwegian first- and second-choice forms, written					
	Norwegian, oral					
5	English, written					
	English, oral					
2	Physical Education					
	Area of Study Subjects:					
2	Law					
6	Practical Office Skills and Computing					
4	Typing					
	Optional Area of Study Subjects:					
2	Economics					
3	Economics and Budgeting					
6	Public Administration					
7	German C Language (Foundation Course)					
	German B Language (Foundation Course), written					
	German B Language (Foundation Course), oral					
	C Language (Foundation Course)					
	B Language (Foundation Course)					

Total periods per week: ..... The School Year is 38 weeks Orientation: .....

Absence: ..... days ..... periods

B language is based on skills gained in the compulsory school
C language is not based on previous study.

School: ..... Place and Date .....

Principal: .....

Document 3.2. **Certificate of Upper Secondary School Education, Area of Study for Commercial and Clerical Subjects: Advanced Course I—Office and Administration Branch (English Version)**

or the general studies advanced course II, providing the student has taken mathematics and a second language. Students who complete the general studies advanced course II are qualified for admission to university study. Those who complete the supplementary music course are qualified for admission to the Norges musikkhøgskole (Norwegian State Academy of Music) in Oslo and to the music conservatories.

In the *Ballet Branch* the two-year foundation course parallels the music branch, except that the study of ballet is substituted. Students study classical ballet, jazz ballet, and modern ballet for 10-11 periods per week in the first year and 14-15 periods in the second year. The foundation course gives access to the supplementary ballet course or to the general studies advanced course I if the student has taken mathematics and a second foreign language.

The supplementary ballet course prepares for admission to the Statens balletthøgskole (National College of Ballet and Dance). Studies in addition to classical ballet, jazz ballet, and modern ballet include Norwegian (five 45-minute periods a week); History since 1850 (4); Music (2); Religion (3); and English (5). For admission to the universities, students must have completed the supplementary ballet course plus the requisite mathematics course, a second foreign language, and one additional subject from the general area of studies in both advanced course I and II.

The *Drama Branch* offers a two-year foundation course, followed by a one-year advanced

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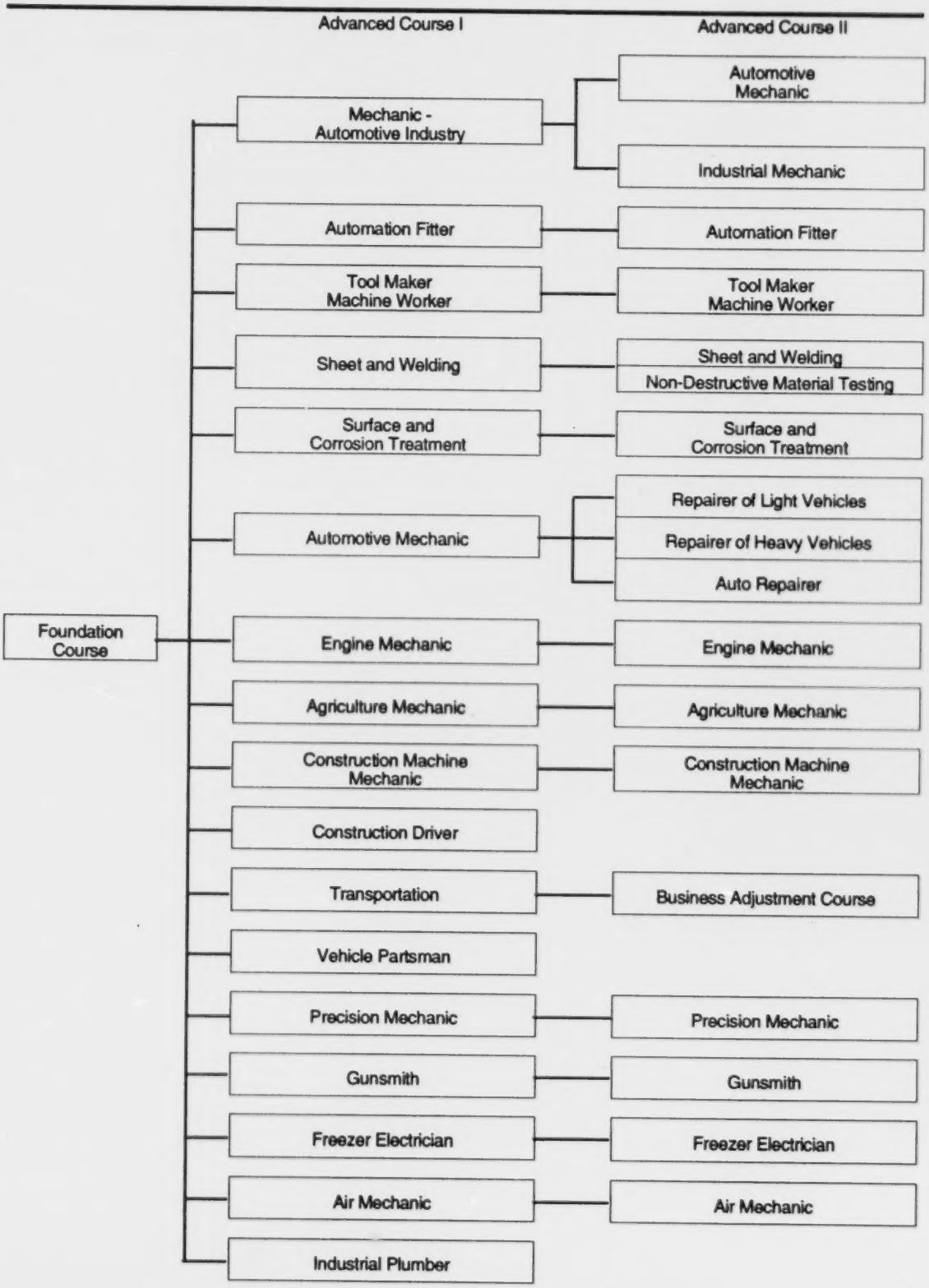
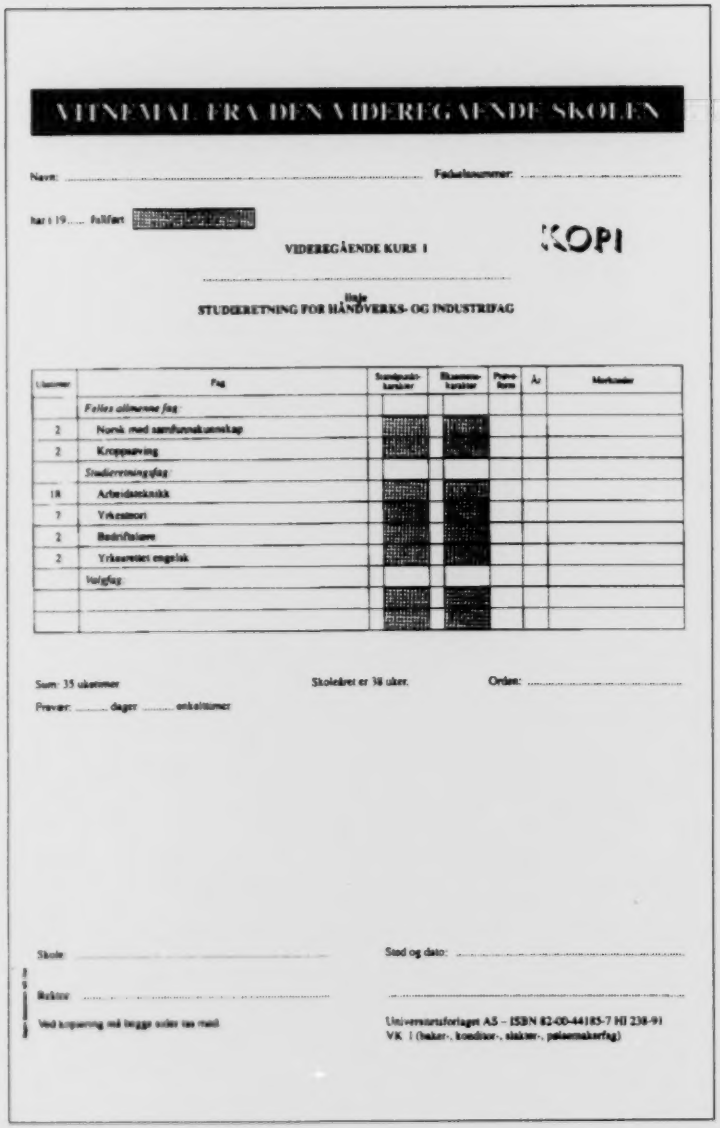
Chart 3.2. Area of Study for *Håndverks- og Industrifag* (Technical and Industrial Subjects), Mechanics Branch



Documents 3.3 and 3.4. Certificate Received at the End of *Grunnkurs* and *Videregående Kurs I* in *Håndverks- og Industrifag* (Technical and Industrial Subjects, Respectively)



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VIDEREGÅENDE KURS I

KOPI

Linje

STUDIERETNING FOR HÅNDVERKS- OG INDUSTRIFAG

Ukestimer	Fag	Standpunktkarakter	Eksamenskarakter	Prøvefarm	År	Merknader
	Felles allmenne fag:					
2	Norsk med samfunnskunnskap	[redacted]	[redacted]			
2	Kroppsøving	[redacted]	[redacted]			
	Studieretningsfag:					
18	Arbeidsteknikk	[redacted]	[redacted]			
7	Yrkesteori	[redacted]	[redacted]			
2	Bedriftslære	[redacted]	[redacted]			
2	Yrkesrettet engelsk	[redacted]	[redacted]			
	Valgfag:					
		[redacted]	[redacted]			
		[redacted]	[redacted]			

Sum: 35 ukestimer Skoleåret er 38 uker. Ordet: .....

Fravær: ..... dager ..... enkelttimer

Skole: ..... Sted og dato: .....

Rektor: .....

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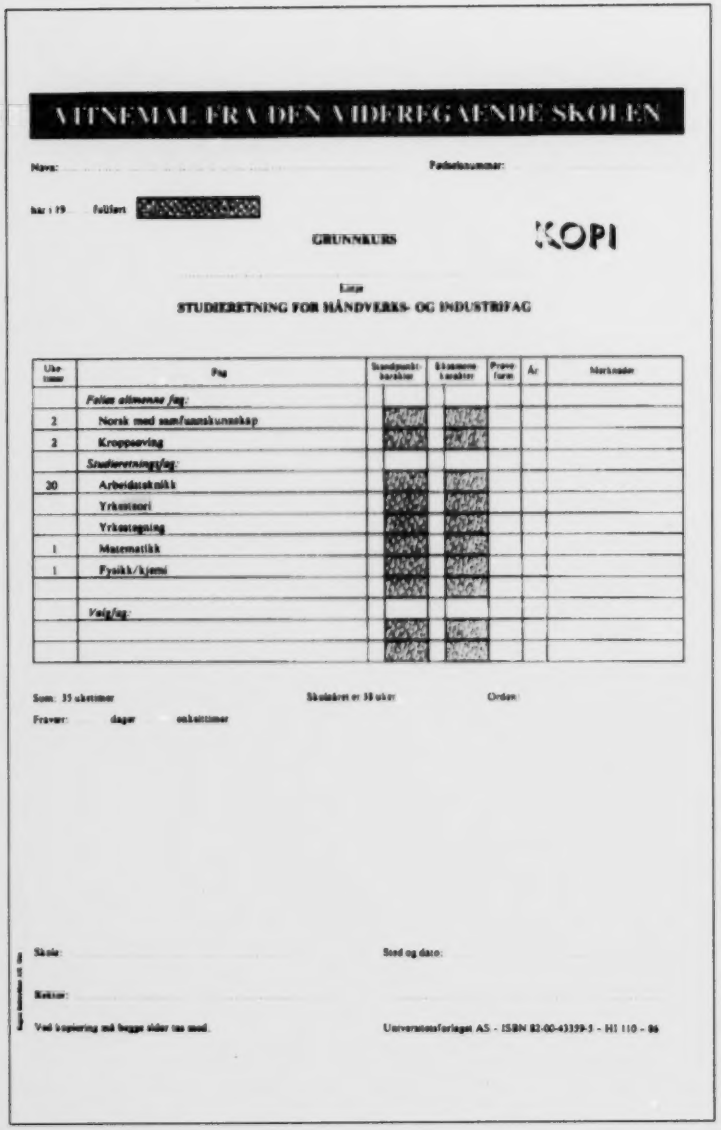
VK 1 (baker-, konditor-, slakter-, pølsemakerfag)



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GRUNNKURS

KOPI

Linje

STUDIERETNING FOR HÅNDVERKS- OG INDUSTRIFAG

Ukestimer	Fag	Standpunktkarakter	Eksamenskarakter	Prøvefarm	År	Merknader
	Felles allmenne fag:					
2	Norsk med samfunnskunnskap	[redacted]	[redacted]			
2	Kroppsøving	[redacted]	[redacted]			
	Studieretningsfag:					
20	Arbeidsteknikk	[redacted]	[redacted]			
	Yrkesteori	[redacted]	[redacted]			
	Yrkestegning	[redacted]	[redacted]			
1	Matematikk	[redacted]	[redacted]			
1	Fysikk/kjemi	[redacted]	[redacted]			
		[redacted]	[redacted]			
	Valgfag:					
		[redacted]	[redacted]			
		[redacted]	[redacted]			

Sum: 35 ukestimer Skoleåret er 38 uker. Ordet: .....

Fravær: ..... dager ..... enkelttimer

Skole: ..... Sted og dato: .....

Rektor: .....

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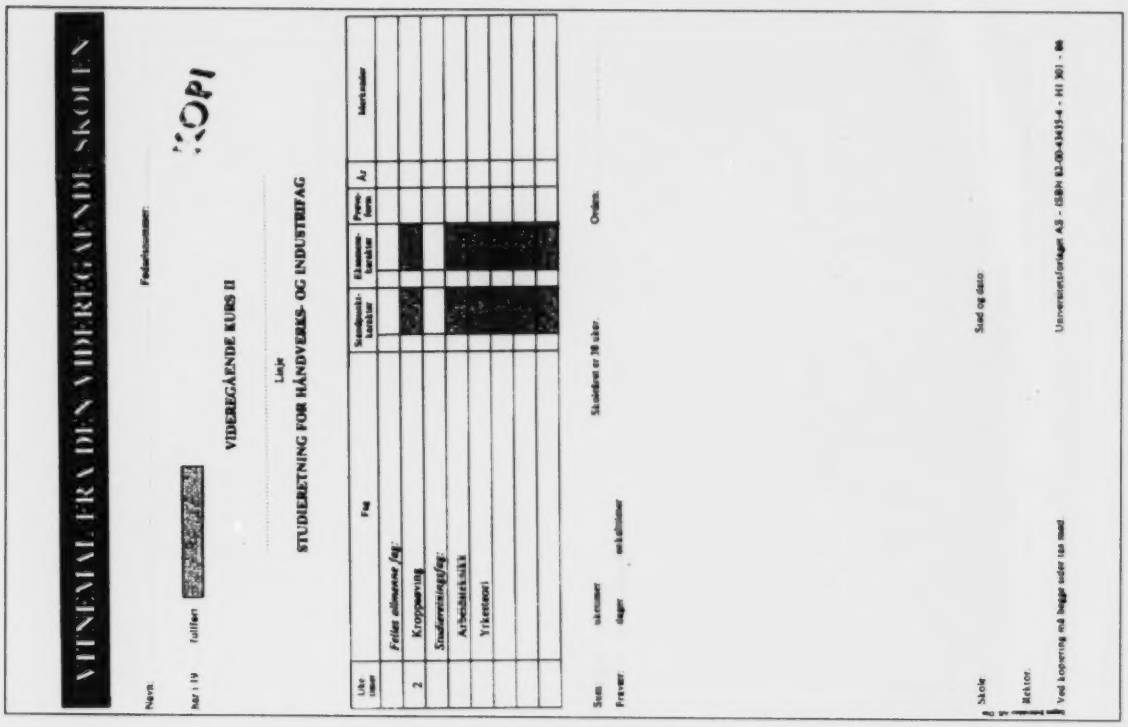

VITNEMÅL FRA DEN VIDEREGÅENDE SKOLEN

KOPI

VIDEREGÅENDE KURS II

Linje

STUDIERETNING FOR HÅNDVERKS- OG INDUSTRIFAG

Navn

Født i/9

fullført

Fødselsnummer

Fag

Like tass

Felles allmenne fag:

2

Kroppsøving

Studieretningsfag:

Arbeidsteknikk

Yrkeslære

Sann. Fravær

timer dager

Standpunkt-karakter

Eksamens-karakter

Prøve-form

År

Merknader

Skolen er 30 elever

Orden

Sted og dato

Skole

Rektor

Ved bedømming må begge sider tas med

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Document 3.5. Certificate Received at the End of *Videregående Kurs II* in Technical and Industrial Subjects

course that combines drama and music, or a one-year foundation course, followed by advanced courses I and II that combine languages with drama studies.

An *Activity Leader Program* follows the foundation course in crafts and is a two-year advanced course with the following curriculum (periods per week in years 1 and 2, respectively, are in parentheses): Activities Training (16/7); Activity Room Management (1/3); Electives (2/2); Interaction with Others (4/9); Medical and Health Studies (4/5); Norwegian (2/2); Physical Education (2/2); Psychology, Ethics and Pedagogy (2/3); and Social Studies (2/2) for a total of 35/35 periods per week.

6. The *husholdningsfag* (home economics) study area offers foundation and advanced course I courses.

- One-year foundation courses are offered in five areas: combined health and environment; combined cookery, waiting and home economics; home economics (discontinued in 1991-92); cookery (as a single subject); and waiting. Three two-year foundation courses are offered in cookery; cookery, waiting and home economics; and home economics (discontinued in 1991-92).

Completion of the combined foundation course in cookery, waiting and home economics qualifies students for admission to all the advanced courses in home economics. The other foundation courses qualify students for admission only to related advanced courses in the study area. A number of students also enter apprenticeships in the field after the foundation course year (see Apprenticeship Training).

Foundation courses include study in Norwegian, Physical Education, Mathematics for the Trade, English, Hygiene, Health Care, and specializations of the chosen field.

- Six subjects are offered at advanced course I level: fresh foodstuffs, cookery, institutional cookery, environment and maintenance, care of food, and waiting. All include the study of Norwegian, marketing economics, trade theory, work technique, and specialization subjects. This area of study offers a one-year general

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studies course that builds on the two-year foundation courses. The general studies course combines common core subjects and home economics with a specialization in dietary needs.

Students who follow the waiting, cookery and institutional cookery branch may take craft skill examinations and receive a Craft Certificate (*Fagbrev*) as a cook or waiter (*Kokk* or *Servitør*). They do not qualify for university matriculation without further study.

7. The *idrettsfag* (physical education) area offers one- and two-year foundation courses. Half the time in the two-year foundation course is devoted to general studies and half to physical education. On completion of the two-year foundation course, students can follow a one-year general studies course that combines physical education and common core subjects, which qualifies them for university matriculation.

   The 45-minute periods of study per week in the physical education area in years 1 through 3 are as follows: Electives (0/0/3), English (5/0/0), Geography (0/3/0), History to 1850 (0/3/0), Mathematics (5/0/0), Modern History (0/0/4), Norwegian (4/5/5), Religion (0/0/3), Science (0/5/0), Second Foreign Language (4/4/4), Social Studies (2/0/0), Sports History (2/2/0), Sports Instruction (8/8/8), Sports and Society (1/1/2), Sports Theory (0/0/4), and Training Management (2/2/3) for a total of 33/33/36 periods per week in years 1, 2, and 3, respectively.

8. *The landbruks- og naturfag* (agricultural and rural subjects) area provides both practical and theoretical training in agricultural science.

- The one-year foundation course is the same for all students, but individual schools emphasize different subjects (care of domestic animals, forestry, gardening, plant production, and rural studies).
- Advanced courses I and II are offered in seven branches of agricultural and rural subjects: general (agronomy), forestry, landscape gardening, market gardening, organic agriculture, reindeer management, and rural studies and environmental conservation. In advanced course II, students choose between sections A and B. Section A is more vocationally oriented, while B concentrates more on general education.
- A *påbygningskurs* (supplementary course) is available to those who have completed advanced course II B in *landbruks- og naturfag* (agricultural and rural subjects) which will fulfill college and university general matriculation requirements.
- A variety of *spesialiseringskurs* (specialization courses) are available for those who have completed advanced course II A or B, referred to as *tekniker* (technician) courses, in such areas as working with domestic animals, plant cultivation and research methods, economics and administration, etc. The periods of study per week in the agricultural and rural subjects area are listed on page 19.

9. *The sjøfartsfag* (maritime subjects) area of study trains personnel for seafaring and offshore work, with particular emphasis on training to be a ship machinist. The several branches offer a three-year course of study which, with relevant experience, leads to vocational certificates.

   The program gives an introduction into maintenance of machine technical equipment and is very practically oriented. The studies are divided into four branches, each offering advanced programs in engine mechanics and machinery. These courses lead to the vocational certificates listed below.

   - Electro-automation branch, leading to the Electro-Automation Technician Certificate
   - Communications branch, leading to the General Radio-Telegraphist Certificate
   - Engineering branch, leading to the Marine Engineering Certificate, Class 4
   - Nautical branch, leading to the Deck Officer Certificate, Class 4

   Two 1-year courses at advanced course III level replaced former half-year courses and provide a theoretical basis with the same content for the qualifications noted below. These qualifications also require practical shipboard experience.

   a. Marine Engineering
      1) Engineer Officer Certificate Class 2 (1st Engineer)
      2) Engineer Officer Certificate Class 1 (Chief Engineer)
   b. Nautical branch
      1) Deck Officer Certificate Class 2 (1st Mate)
      2) Deck Officer Certificate Class 1 (Captain)

10. The *sosial- og helsefag* (social and health subjects)—also referred to as *helse- og miljøfag*

(health and environment subjects)—area of study prepares students for paramedical professions. Admission to nursing assistant courses is very competitive. Most students will have had substantial previous experience as an aide in the nursing care field.

- The one-year foundation course concentrates on health and environmental subjects and is composed of the following studies (periods per week are noted in parentheses): Electives (2), Environmental Studies (11), Norwegian (4), Physical Education (2), Science (2), Social and Health Studies (9), and Social Science (2) for a total of 32 periods per week.

The two-year foundation course includes the one-year foundation course listed above and one year of study in general studies area subjects. The structure (with periods of study for years 1 and 2, respectively, in parentheses) is as follows: Cost/Nutrition/Environment (7/4), Electives (9/4), English (5/3), Geography (0/3), History (0/3), Norwegian (4/5), Physical Education (2/2), Psychology (0/2), Science (2/3), Social and Health Studies (4/5), and Social Studies (2/0), for a total of 35/34 periods per week in years 1 and 2, respectively.

Successful completion of the two-year foundation course qualifies students for the ad-

Agricultural and Rural Subjects Curriculum, 45-Minute Teaching Periods per Week/Year

Subjects	Year 1	Year 2	Year 3	Year 4•	
				Sec. A	Sec. B
A-Language (English)	-	-	-	5	-
B-Language	-	-	-	-	8
Biology	-	3	-	-	5
Chemistry	-	-	-	3†	-
Early History	-	-	-	-	3
Economics	-	3	7	4	-
Mathematics	2	-	-	3	5†
Norwegian	2	2	2	5	5
Optional Subjects	2	2	2	-	1
Physical Education	2	2	2	2	2
Production Subjects	17	17	18	10	-
Project Work	-	-	1	1	-
Recent History	-	-	-	-	4
Religious Education	-	-	-	-	2
Science	5	-	-	-	-
Social Studies	2	-	-	-	-
Technical Subjects	3	6	3	2	-
Periods per Week	35	35	35	35	35

•*Påbygningskurs* (supplementary course)

†Subjects which are not required for general matriculation, but which may be used to satisfy special matriculation requirements to the Norges landbrukshøgskole (Norwegian Agricultural University) and the Norges veterinærhøgskole (Norwegian College of Veterinary Medicine).

vanced course I in *allmenne fag* (general studies), or to a supplementary course in health and environment with general studies area subjects as part of the program.

- The advanced course I in *sosial- og helsefag* is offered in 10 branches which lead to employment in the related field. The branches and total hours in required subjects or the number of required periods taught per week are:

  Apotektekniker (pharmacy technician): Norwegian (190 hours), physical education (76), basic electronic data processing instruction (76), field work (270), commodity study (340), commodity management (110), dispensing (110), workplace and environment (44), electives (114).

  Barnepleier (nursery assistant): Norwegian (5 weekly periods), physical education (2), work theory and environment (11), practical experience (14), electives (3).

  Fotterapeut (foot therapist): Norwegian (5 weekly periods), physical education (2), work theory (10), practical experience (18).

  Helsesekretær (health secretary): Norwegian (190 hours), English (190), mathematics (190, or 76 depending on subjects selected), physical education (76), practical accounting (266), science (266), social and health studies (152), electives (0, or 114 depending on subjects selected). If mathematics is taken for 190 hours, a portion will count in the electives.

  Hjelpepleier (auxiliary nurse): Norwegian (5 weekly periods), physical education (2), work theory (8), practical experience and work technique (17), electives (3).

  Hjelpepleierutdanning for voksne (auxiliary nurse course for adults): Norwegian (2 weekly periods); physical education (2); anatomy, physiology, nursing instruction (4); social and health studies (2); nursing (9); practical experience (16).

  Hudpleier (skin care consultant): Norwegian (5 weekly periods), physical education (2), work technique (18), professional theory (10).

  Legesekretær (medical secretary): Norwegian (5 weekly periods), physical education (2), work theory (10), medical secretary work in a health institution (7), medical secretary service in primary care service (8).

  Pleie- og omsorgsfag (nursing and care assistant course): Norwegian (190 hours), English (190), mathematics (190 or 76), physical education (76), cost/nutrition/environment (190), pedagogical psychology and ethics (152), health instruction/physiology/nursing instruction (304), microbiology/hygiene/social studies (38), electives (0 or 13). When mathematics is taken for 190 hours, it will be counted as an elective subject.

  Tanntekniker (dental assistant): A three-year course, which combines theory and practice. Prior to 1992-93, dental assistant training was not offered in the upper secondary school, but in a one-year *tannlegesekretærskole* (dental assistant school) program at the University of Oslo (see "Dentistry" and "Dental Hygiene" in Chapter V). The upper secondary *tanntekniker* program now includes a *grunnkurs* (foundation course) and *videregående kurs I og II* (advanced course I and II).

- A *videregående kurs II* (advanced course II) is offered in each specialty as well as the two more general supplementary courses listed below.
- A supplementary course (*påbygningskurs*) in health and environment is offered for those who have satisfactorily completed a two-year foundation course in the area of study. It includes the following weekly periods of study: Norwegian (5), history (4), religion (3), physical education (4), social studies I (5), social knowledge (5), obligatory foreign language (3), and electives (6). Graduates are eligible for university matriculation if they have studied one year of elective mathematics, a second foreign language, and one additional subject from the general area of studies. If they have not completed these studies, they are eligible for matriculation in nonuniversity tertiary level institutions of nursing, nursing for the mentally handicapped, social welfare, ergotherapy, preschool teaching, child welfare, and general teaching (if they had one year of elective mathematics).

  In addition a supplementary course in general study subjects includes Norwegian (5), religion (1), French or German (7), social studies (5), sociology (5), history of political thought (2), social economics (3), and physical education (2). Graduates of this course are qualified for matriculation at a university or other tertiary level institution if they have studied one year of elective mathematics, a second foreign language, and one additional subject from the general area of study.

Apprenticeship Training

Many of the subjects offered in vocational areas of study can also be completed as part of apprenticeship training. The conditions for this form of training are laid down in the Vocational Training Act of 1980, which concerns apprenticeship training in the workplace. In addition to outlining the provisions governing the rights and duties of apprentices and training establishments, the Act establishes rules governing the craft and journeyman's examinations and to some extent the apprentices' school (*lærlingskole*) and training. Appendix A lists all trades in which apprenticeships are offered and the length of each program.

Anyone who has completed compulsory education, is under the age of 20, and is engaged in work in a trade or craft is considered an apprentice and is subject to the provisions of this act. All apprentices under the age of 20 who have not received advanced instruction in the trade must attend apprentices' schools at the upper secondary level. The Ministry-approved curriculum, laid down by the training council for the trade or craft in question, comprises both practical training, the principal elements and framework for theoretical training, as well as the examination regulations.

Apprenticeship training consists of a combination of formal vocational education in school and practical theoretical training on the job. Students attend school one day a week over a three- or four-year period, or the equivalent in short concentrated courses, and spend the remainder of their time in on-the-job training. As of 1994 all apprentices are required to complete two years of school work and one year of practical work. An apprenticeship can be entered into without any prior upper secondary vocational training. Most students, however, take a foundation course and possibly an advanced course I in an upper secondary school program and then enter an apprenticeship.

The on-the-job training portion of an apprenticeship program normally lasts from two to four years, depending on the trade and the student's previous education. There are four stages of theoretical training. Periods of relevant vocational education at school reduce the length of the apprenticeship proportionately, i.e., a one-year foundation course reduces the apprenticeship by ten months. Students who have completed the foundation course in a vocational area prior to entering an apprenticeship are exempt from the first and second stage of apprenticeship training. Those who have completed advanced course I have also covered the theoretical portion of apprenticeship training. Chart 3.3 indicates the different tracks available for which apprenticeship programs may be completed.

Students who entered apprenticeships directly from compulsory school may on completion of stage two apply for admission to advanced course I, assuming they have the required practical experience. Students who have completed the third stage of apprenticeship may apply for admission to advanced course II.

On completion of the apprenticeship, a trade skills or journeyman's examination (*svenneprøve* or *fagprøve*), set by the related trade union, is taken, leading to the award of a trade skills or journeyman's certificate (*svennebrev* or *fagbrev*). A journeyman's certificate is also referred to as a craft certificate. The difference in these two terms is historical; there is no practical difference in training. The *fagbrev* is generally awarded in industrial and service fields, the *svennebrev* in those areas formerly classified as crafts.

In a few subjects, the trade skills examination can be taken on completion of advanced course II. Usually, however, an additional period of practical training is required. The examination consists of a theoretical and practical part. The theoretical part is considered completed when the apprentice has passed a final examination at apprentices' school or in an appropriate course at the upper secondary level. The practical part of the examination is carried out in the work establishment. The contents of the examination are established by the appropriate trade union.

In addition to the vocational certificate, those who have completed a full apprenticeship program of any type will receive a *vitnemål fra den videregående skolen* (certificate from upper secondary school), which will list the *lærlingskolen* (apprentice school) studies. The *lærlingskolen* documentation provides information only on the in-school portion of the apprenticeship program. See sample document 3.6. In practice, an apprentices' school is usually a special section of a nearby upper secondary school, but there are some separate specialized apprentices' schools.

Holders of a *svennebrev* can apply to the related trade union for a special master craftsman examina-

tion after several years' experience. The certificate awarded is the *mesterbrev* (master certificate).

Teknisk Fagskole (Technical School)

Technical schools are part of upper secondary education and offer two-year programs to students who already have trade skills, practical experience in employment, and/or upper secondary education.

Technical schools offer courses in civil construction, motor mechanics, drilling technology, production technology, electrical power, electronics, house building, chemistry, machinery, foodstuffs technology, process technology, welding technology and heating, ventilation, and sanitary technology. A *vitnemål fra den videregående skole* (certificate from upper secondary school) from the *teknisk fagskole* is awarded upon completion. This is a vocational certificate, which also qualifies students for further technical studies, usually in an *ingeniørhøgskole* (engineering college). Graduates are referred to as *tekniker* (technician). See sample document 3.7.

Some technical schools also offer a one-year course of additional studies in certain subjects.

Private Upper Secondary Schools

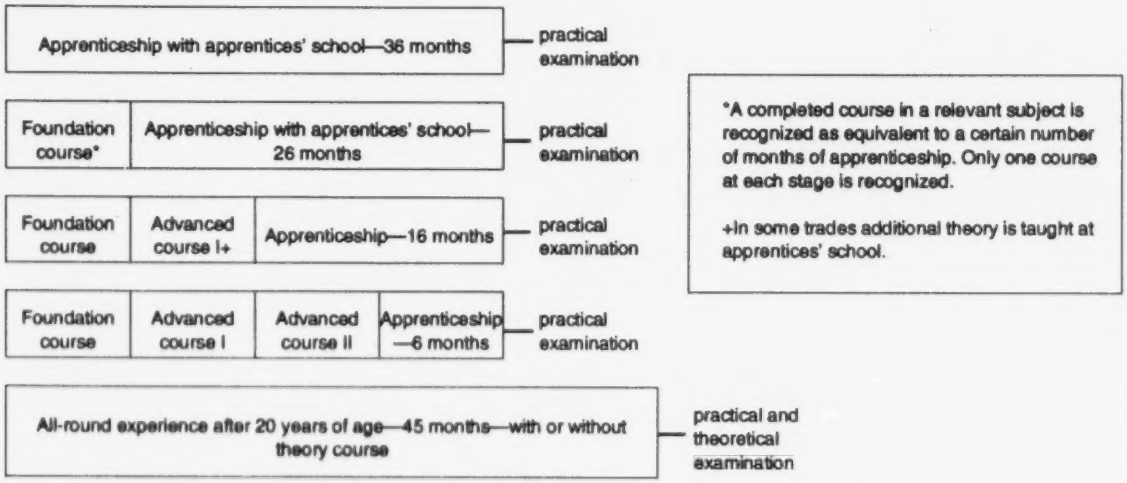
There are a few private secondary schools. Many offer evening courses. Students follow the same academic programs as students in public schools. The private schools may offer internal final examinations only if approved by the Council on Secondary School Affairs. Students attending private schools that do not have this approval must apply to take the national examinations in every subject for which they wish to have documented credit in order to pursue further education. Private school records from schools without Council approval will only report grades for national examinations.

International Baccalaureate

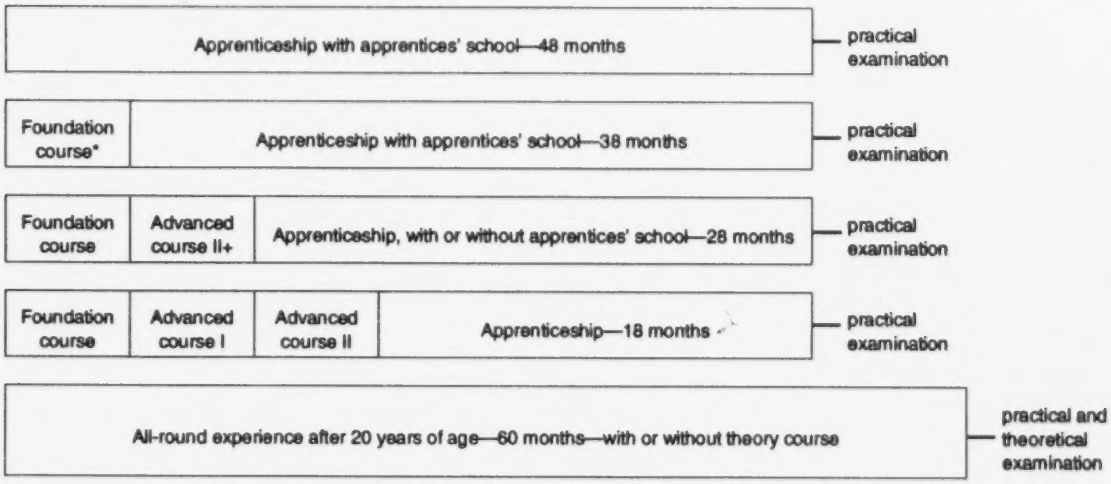
Some upper secondary schools offering the general studies area also offer the International Baccalaureate (IB) program. The IB program requires two years of study and is taught entirely in English. It is normally begun after the student has completed the foundation year of the general studies area program.

Chart 3.3. Tracks for Completion of Apprenticeship Programs

Trades With Three Years' Apprenticeship


Apprenticeship with apprentices' school—36 months
practical examination
Foundation course*
Apprenticeship with apprentices' school—26 months
practical examination
Foundation course
Advanced course I+
Apprenticeship—16 months
practical examination
Foundation course
Advanced course I
Advanced course II
Apprenticeship—6 months
practical examination
All-round experience after 20 years of age—45 months—with or without theory course
practical and theoretical examination
*A completed course in a relevant subject is recognized as equivalent to a certain number of months of apprenticeship. Only one course at each stage is recognized.
+In some trades additional theory is taught at apprentices' school.

Trades With Four Years' Apprenticeship



Source: The Ministry of Education, Research and Church Affairs, May 1992.

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VITNEMÅL FRA DEN VIDEREGÅENDE SKOLEN

Navn: ..... Fødselsnummer: .....

har i 19..... fullført [redacted]

KOPI

LÆRLINGSKOLEN

.....
Linje

.....
Studieretning

Timer	Fag	Standpunkt-karakter	Eksamens-karakter	Prøve-form	År	Merknader
76	Norsk (trinn Ia)					
76	Matematikk					
38	EDB					
38	Samfunnslære med yrkesetikk					
38						
	Fagteori (trinn IIa/b)					
38	Norsk (trinn IIIa)					
76	Bedriftslære					
	Fagteori (trinn IIIb)					

Sum:.....timer totalt for lærlingskolen ifølge KUFs bestemmelser. Orden: .....

Fravær: .....enkelttimer

Trinn ..... i lærlingskolen er godskrevet pga. annen utdanning:

.....

.....

Skole: ..... Sted og dato: .....

Rektor: .....

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Document 3.6. Certificate from Upper Secondary School, Apprentices' School

DEN VIDEREGÅENDE SKOLEN

TEKNISK FAGSKOLE
ELEKTRONIKKLINJE

Fag- og timefordelingsplan:	2 år heltid	
	1. klasse	2. klasse
Norsk og samfunnskunnskap	4	
Engelsk	2	2
Matematikk	6	4
Fysikk	4	
Kjemi	2	
Bedriftslære		3
Kroppsøving	2	2
Mekanikk	3	
Teknologi	2	
Elektroteknikk	6	
Elektronikk		6
Teleteknikk		8
Elektriske maskiner		2
Laboratorieøvinger	4	4
Tilvalgsfag		4 (6)
Sum uketimer:	35	35 (37)

Skoleåret er 38 uker.

Vurderingsformer:

Tallkarakterer har følgende grader

Karakteren 6: Eleven/privatisten har vist særdeles god innsikt i og forståelse av alle deler av lærestoffet. Han/hun har vist stor modenhet, evne til selvstendig arbeid, evne til logisk resonnement og meget grundige faglige kunnskaper og ferdigheter. Både muntlige og skriftlige prestasjoner, form og uttrykksmåte skiller seg klart ut.

Karakteren 5: Eleven/privatisten har vist meget god innsikt i og forståelse av alle deler av lærestoffet. Det stilles krav om grundige faglige kunnskaper og ferdigheter, men ikke så høye krav til modenhet og logisk resonnement som for karakteren 6. Han/hun uttrykker seg klart både skriftlig og muntlig.

Karakteren 4: Eleven/privatisten har vist god innsikt i og forståelse av hoveddelene av lærestoffet. Vedkommende har til dels gode faglige kunnskaper og ferdigheter. Han/hun viser en viss modenhet i beherskelsen av stoffet.

Karakteren 3: Eleven/privatisten har vist noe varierende innsikt i og forståelse av hoveddelene av lærestoffet. Han/hun har tilegnet seg grunnleggende kunnskaper og ferdigheter, men viser noe ujevnhet i beherskelsen av stoffet.

Karakteren 2: Eleven/privatisten har vist innsikt i og forståelse av hoveddelene av lærestoffet og tilegnet seg en del grunnleggende kunnskaper og ferdigheter. Prestasjonene viser usikkerhet, men kan faglig og formelt passere.

Karakteren 1: Eleven/privatisten har tilegnet seg liten innsikt i og forståelse av lærestoffet og/eller små kunnskaper og ferdigheter. Han/hun anses ikke å ha oppnådd tilstrekkelig grunnlag for å arbeide videre i faget.

Karakteren 0: Eleven har ikke hatt påvirkelig faglig utbytte av undervisningen. Ved prøver anvendes karakteren for den faglig verdiløse besvarelse og når det leveres blank besvarelse eller ingen besvarelse.

Den som har fått karakteren 2 eller bedre i faget har bestått.

Deltatt:

Betegnelsen «Deltatt» gir ikke opplysning om elevens faglige nivå, men
- om eleven har deltatt aktivt i undervisningen
- om eleven har deltatt i undervisningen gjennom hele skoleåret.

Krav til bestått kurs:

Kurset er bestått dersom karakteren er 2 eller bedre i alle fag der det gis tallkarakter. Dersom det i et fag er gitt både standpunktkarakter og eksamenskarakter, er betingelsen for bestått kurs oppfylt dersom eksamenskarakteren er 2 eller bedre. Vilkåret for bestått kurs er oppfylt dersom karakteren er 1 i kroppsøving.

Nærmere forklaring til vitnemålet:

Der det er gitt standpunktkarakter (og eventuelt eksamenskarakter), har eksaminanden vært *elev* i den videregående skolen. Hvis det er gitt bare eksamenskarakter, er eksamen tatt som *privatist*.

Prøveformer ved eksamen:

Skriftlig (S). Muntlig (M). Praktisk (P). Kombinert (K).

VITNEMÅL

Født			
Dag	Måned	År	Personnummer
[redacted]			

[redacted] Navn

har i 19 82 fullført 2-årig [redacted]

TEKNISK FAGSKOLE
ELEKTRONIKKLINJE

og har fått følgende vurdering:

Uketimer 1. kl.	Uketimer 2. kl.	Fag	Standpunktkarakter	Eksamenskarakter	Prøveform	År	Merknader
4	-	Norsk og samfunnskunnskap	3	[redacted]			
2	2	Engelsk	4	[redacted]			
6	-	Matematikk I	5	4	S		
-	4	Matematikk II	5	[redacted]			
4	-	Fysikk	5	4	S		
2	-	Kjemi	4	fire			
-	3	Bedriftslære	4	fire			
3	-	Mekanikk	3	tre			
2	-	Teknologi	4	fire			
6	-	Elektroteknikk	4	fire	4 fire	S	
-	6	Elektronikk	4	fire	5 fem	S	
-	8	Teleteknikk	2	to	3 tre	S	
-	2	Elektriske maskiner	4	fire	3 tre	S	
4	4	Laboratorieøvinger	3	tre			
-	-	Fagregning					
-	-	Tilvalgsfag Digitalteknikk/ Mikroprosessor	3	tre			
-	-	Tilvalgsfag Data-kommunikasjon	3	tre			
2	2	Kroppsøving Deltatt					

Fravær 1. år: _____ dager _____ enkelttimer Fravær 2. år: _____ dager _____ enkelttimer

Med hensyn til kompetanse, herunder fradrag i læretid, henvises det til gjeldende bestemmelser.

[redacted]

Skole

[redacted] den [redacted] 19[redacted]

[redacted]

Ved kopiering av dette vitnemålet må alt på side 2, 3 og 4 tas med.

- 3 -

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Chapter 4
HIGHER EDUCATION

Overview of Higher Education

In 1993 the system of higher education underwent a comprehensive restructuring process. There were more than 100 public institutions and numerous private institutions (see Appendix B). These included the university sector (four public universities; six public specialized university-level institutions; and two private university-level institutions), and the public college sector (numerous multi-field institutions, as well as single-field institutions). In addition, there were private colleges that offered education in various fields, the majority in the area of business.

Academic Year

At most institutions of higher education, classes start in August and end in June. There are two semesters: the *høstsemester* (autumn semester) that lasts from August to December and the *vårsemester* (spring semester) that runs from January to June. Summer terms are becoming more common. Excluding examination periods, vacations, and summer terms, usually 28 weeks of teaching are provided per year at most institutions.

State Educational Loan Fund

The State Educational Loan Fund (Statens lånekasse for utdanning; Postboks 195 Økern, 1510 Oslo; Tel: +47 22 72 67-00) was established in 1947. It is operated by the government for the benefit of students attending secondary and tertiary educational programs. Financial aid is normally limited to those enrolled in fulltime studies, but certain categories of part-time students are eligible. Tuition at public institutions is not required in Norway; scholarships and loans awarded by the Loan Fund are intended to be used for students' living expenses and books. Repayment of loans is not required as long as students are still studying; once students graduate, they repay the loan over a maximum period of 20 years. The loan is interest free until education is completed. If education is considerably delayed, interest may be charged from the time education should have been completed.

To continue receiving scholarships and loans, students must demonstrate they are progressing in their education at a rate established by the Loan Fund. The Loan Fund awards financial aid on the basis of the time it normally takes to complete one academic program. Funding for advanced degree programs may be considered, but is not automatic. Students in private institutions have the same rights to state scholarships and loans when the programs in which they are enrolled are recognized by the Ministry of Education, Research and Church Affairs.

For Norwegian students studying in the United States, loans are available for academic work at the sophomore level or higher (in most cases) in four-year tertiary-level institutions. US programs must have programmatic accreditation and be offered by institutions which have regional academic accreditation. Grants and loans are sent to the student twice a year, usually some weeks before the beginning of the term. The individual student is responsible to the school for the payment of fees.

Student Welfare Organizations

National student welfare organization and individual college and university student welfare organizations represent Norwegian students in a wide range of student welfare matters. For example, student housing, financed in part by public funding, is administered by student welfare organizations that also oversee student nursery schools, student cafeterias, and student health services.

Supervision of Education

The Ministry of Education, Research and Church Affairs has ultimate responsibility for public higher education in Norway, except for the Norges landbrukshøgskole (The Agricultural University of Norway) and the Norges veterinærhøgskole (Norwegian College of Veterinary Medicine) which are the responsibility of the Ministry of Agriculture.

The Ministry of Education, Research and Church Affairs regulates which programs of study are offered, funds a specified number of student places per institution and faculty in relation to admission capacities, and specifies which degrees and diplomas may be awarded by each institution. In addition, it prepares national curricula which indicate the general nature and duration of study programs. Individual institutions, however, have substantial autonomy in determining how the programs will be implemented. Universities and specialized university-level institutions are accorded more independence in terms of course content than other higher education institutions.

Approximately 90% of students in higher education programs are enrolled in public institutions. The various private institutions of higher education receive between 10% and 100% of their budgets through public funding.

Overview of Legislation and Transfer Credit

In 1970 the Act of Examinations and Degrees was passed to regulate the tertiary education sector. The Act made it formally possible to combine education from different university faculties, other universities, and university-level institutions. The institution coordinated their decisions through recommendations made by the Nasjonalt Koordinerende Utvalg/NKU (National Coordinating Commission) of the Norwegian Council of Universities. The NKU was established in 1973 to ensure that each university and university-level institution was securing equal credit for the same examinations taken at other institutions.

In addition, the Act specified that examinations from other universities or university-level institutions receive full transfer credit as long as the studies were compatible with the degree to be pursued and that studies from the public or private colleges (nonuniversity tertiary-level institutions) were either fully credited, partially credited, or were completely refused.

In 1977 the Ministry of Education, Research and Church Affairs was entitled by Parliament to extend the application of the 1970 Act of Examinations and Degrees to include colleges. This was put into effect in 1981 and was linked to the introduction of a regional *candidatus magisterii* (*regional cand. mag.*) degree. Since 1981, then, studies completed at the majority of nonuniversity tertiary-level institutions have received full transfer credit in university degree programs. Universities have the right to temper the amount of transfer credit. For the most part, however, the NKU recommendations are followed.

Nonuniversity tertiary-level institutions include the following:

1. *distriktshøgskolene* (regional colleges)
2. *ingeniørhøgskolene* (engineering colleges)
3. *kommunal- og sosialhøgskolene* (local government administration and social work colleges)
4. *pedagogiske høgskolene* (colleges of education)
5. Norges musikkhøgskole (Norwegian State Academy of Music)
6. Norsk journalisthøgskole (Norwegian College of Journalism)
7. Statens bibliotek- og informasjonshøgskole (Norwegian School of Library and Information Science)

Throughout the 1980s, the college system expanded. Colleges of nursing and other health sciences were transferred from municipal to national jurisdiction or from the jurisdiction of the Ministry of Social Affairs to the Ministry of Education, Research and Church Affairs. These colleges sought the same rights for transfer of credit that other colleges enjoyed. It was decided that nursing and health sciences programs with a substantial practical component would receive partial transfer credit.

The University Act of 1989 replaced the 1970 Act of Examinations and Degrees and subsequent acts pertaining to individual universities, though the structure and logic remained the same. Chapter 11 of the University Act of 1989 regulates the transfer credit practices of virtually all public tertiary-level institutions, leaving the NKU to recommend the transfer of credit between private institutions (which in 1991 enrolled approximately 10,000 students) and public institutions twice each year.

A Dual System of Education: The University and College Sectors

Norway has a dual system of formal higher education: the university sector and the college sector. The university sector includes 10 public institutions and two private institutions. These institutions carry out research, and all but one offer instruction to the level of the doctorate. In 1993 approximately 72,000 students were enrolled in university sector institutions.

Det norske universitetsråd (The Norwegian Council of Universities, Harald Hårfagresgt 17, 5007 Bergen) was established by the 10 public university-sector institutions in 1976 to coordinate the views of the institutions. The National Coordinating Commission or NKU is one committee of the Council. The Council represents the interests of the institutions to, and is supported by, the Ministry of Education, Research and Church Affairs. The Council's main objectives are 1) to develop strategies for higher education and research in the university system, 2) to improve national coordination, and 3) to be a joint contact point to the international network of universities.

The public college sector has been reorganized. The number of colleges was reduced from 98 to 26. Including the universities, only 17 of the 98 higher education institutions enrolled at least 1000 students in 1992. Because of the large number of small institutions in the college sector, the Ministry of Education, Research and Church Affairs was authorized by Parliament to reduce the number of institutions. As of August 1994, the colleges will be reorganized into larger units by mergers of the colleges in the same local vicinity and, in some cases, within larger areas such as counties. There will be 26 new *høgskoler* (colleges). Many of the colleges will complete their merging gradually throughout 1994, though some of the colleges may keep their individual identities for a longer period of time.

The public colleges offer two-, three- and four-year programs in many fields. Approximately 65,000 students were enrolled in these institutions in 1993. The types of colleges reorganized into the 26 larger *høgskoler* are listed below:

1. *barnevernsakademiet* (preschool teachers' college)
2. *bibliotek- og informasjonshøgskole* (library and information science college)
3. *distriktshøgskole* (regional college)
4. *fysioterapihøgskole* (physical therapy college)
5. *helsefagskole* (health professions college)
6. *høgskolesenter* (college center)
7. *ingeniørhøgskole* (engineering college)
8. *journalisthøgskole* (journalism college)
9. *lærerhøgskole* or *pedagogisk høgskole* (teachers' college or college of education)
10. *maritim høgskole* (maritime college)
11. *musikkonservatorium* (music conservatory)
12. *næringsmiddelteknisk høgskole* (food technology college)
13. *reseptarhøgskole* (pharmacy technician's college)
14. *sosialhøgskole* (social work college)
15. *sykepleierhøgskole* (nursing college)
16. *vernepleierhøgskole* (social educator college)
17. *økonomisk høgskole* (business college)

Appendix B lists the new *høgskoler* as of 1994, and the names of the colleges that are being consolidated to form them. It also lists eight public institutions offering education in art and design plus one college under municipal jurisdiction (Økonomisk College) which are not part of the reorganization. In addition, 20 private college-sector institutions that receive government funding are included as are public and private institutions with programs partially or fully recognized by the NKU that are not government funded.

Provisions for Academic Transfer Within Norway: The *Candidatus/Candidata Magisterii (Cand. Mag.)* Degree

Progression through the levels of higher education and within the levels of higher education in Norway is based on a system of building blocks and ease of transfer from one institution to another. In many fields, this is accomplished by students studying one subject at a time in depth and, once completed, moving on to another subject, whether at the same institution or another institution. This system depends on regulations regarding transfer to and from public colleges and universities. Since private institutions offer institution-specific programs and award their own credentials for the most part, transfer from private to public institutions is dependent upon recommendations made by the Nasjonalt Koordinerende Utvalg/NKU (National Coordinating Commission). These procedures are described in the section above.

Most of the public colleges are authorized to award the *regional* (regional) *candidatus/a magisterii (cand. mag.)* degree—*candidatus* for males, and *candidata* for females. This four-year degree requires that at least one subject be studied for three semesters, another subject for two semesters, and additional elective subjects for the remaining three semesters. Unless the student transfers to a university and completes all university degree requirements, including the *examen philosophicum*, the regional *cand. mag.* degree will be awarded by the college-sector institution the student attended at least one year of the four years of required study. While most colleges do not offer integrated programs longer than three years in length, additional academic programs at least one semester in length completed at any public college, university, or university-level institution may apply to the four-year requirement for the regional *cand. mag.* (See also the section entitled "The College Sector" later in this chapter.)

This degree is considered in Norway to be at the same level as a university-awarded *cand. mag.* degree, which is the basic university degree (see "Structure of Degree Programs" below). Individuals holding a regional *cand. mag.* degree are entitled to all of the same rights as those with a *cand. mag.* degree awarded by a university, including eligibility for admission to an advanced degree program offered by a university. Sample documents 4.1 and 4.2 are examples of a regional *cand. mag.* degree and a university-awarded *cand. mag.* degree.

The University Sector

Universities and Specialized University-Level Institutions

Norway's four universities, the University of Bergen, University of Oslo, University of Tromsø, and the University of Trondheim, offer a variety of degree studies in the arts, mathematics and natural sciences, social sciences and psychology; and professional degree programs in dentistry, engineering and architecture, law, medicine, pharmacy, and theology. Degrees are awarded by a specific faculty, except in the case of special inter-faculty degrees which are comprised of subjects from several faculties, or, in some cases, from other institutions. The degree is then awarded by the university rather than by an individual faculty.

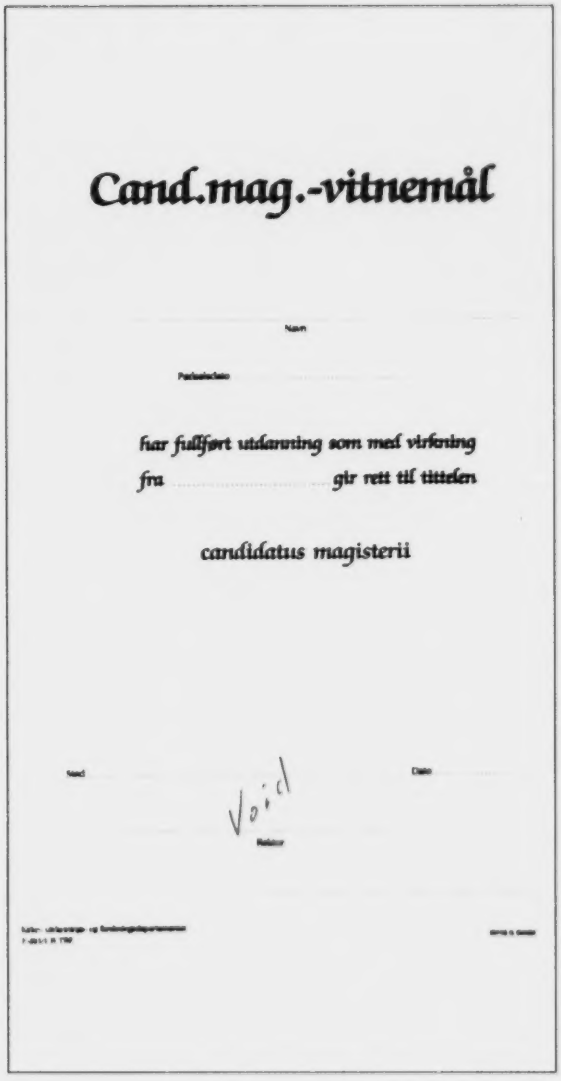
Six public institutions and two private institutions are classified as specialized university-level institutions. They each offer instruction in one main academic area. All but one institution award their own degrees up to the level of the doctorate. These institutions offer professional degree programs that are described in the appropriate sections by field of study. They are:

1. Arkitekthøgskolen i Oslo (Oslo School of Architecture)
2. Handelshøyskolen BI (Norwegian School of Management) - private
3. Norges handelshøyskole (Norwegian School of Economics and Business Administration)
4. Norges idrettshøgskole (Norwegian University of Physical Education and Sport)
5. Norges musikkhøgskole (Norwegian State Academy of Music) [no doctorate]
6. Norges landbrukshøgskole (The Agricultural University of Norway)
7. Norges veterinærhøgskole (Norwegian College of Veterinary Medicine)
8. Det teologiske menighetsfakultet (Free Faculty of Theology)-private

Admission Requirements and Procedures

Admission to the universities and the specialized university-level institutions requires successful completion of three years of upper secondary school study in specified subjects. Competition for places in the institutions is based on numerical information, rather than on a student's individual characteristics. Points are based on the grades obtained on the *vitnemål fra den videregående skolen* (certificate from the upper secondary school) and on supplementary points. The final score that determines admission is made up of three sets of points: a) *karakterpoeng*, which is the upper secondary school average of all grades received multiplied by 10; b) *fordypningspoeng*, which are extra points given for advanced courses taken in the upper secondary school general subjects area only; and c) *tilleggspoeng*, which are supplementary points given either for previous college or university study, age, and/or practical experience. Applicants are ranked according to the total number of points obtained.

As of 1993, most public higher education institutions use the same admission criteria with some exceptions in medicine and mathematics and natu-



Cand.mag.-vitnemål

Navn

Fødselsdato

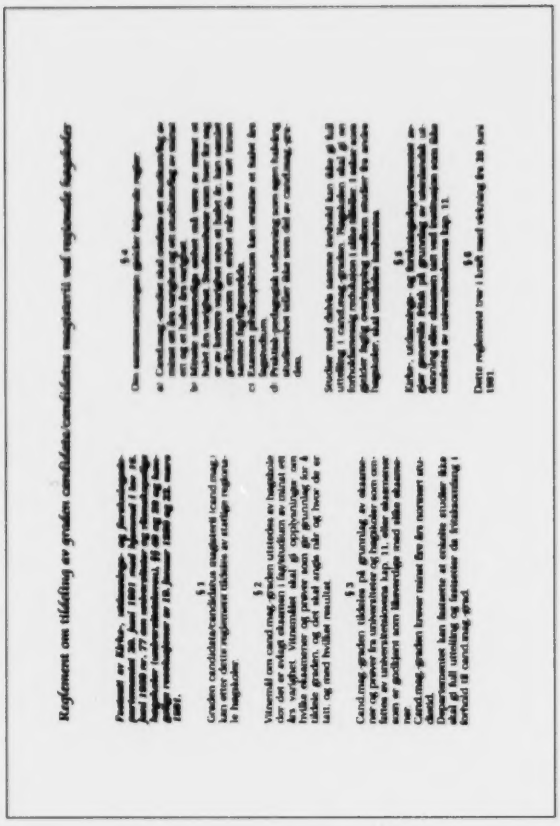
har fullført utdanning som mag. art. virksomhet
fra ..... gir rett til tittelen

candidatus magisterii

Sted Dato

Rektor

Void



Reglement om tildeling av graden candidatus/candidata magisterii ved regionale høgskoler

§ 1

Graden candidatus/candidata magisterii (cand.mag.) kan etter dette reglement tildeles av statlige regionale høgskoler.

§ 2

Vitnemål om cand.mag.-graden utstedes av høgskole der det er avlagt eksamen i høgskolens art og virksomhet. Vitnemålet skal gi opplysninger om hvilke eksamener og prøver som gir grunnlag for å tildele graden, og det skal angis når og hvor de er tatt og med hvilke resultat.

§ 3

Cand.mag.-graden tildeles på grunnlag av eksamener og prøver fra universiteter og høgskoler som omfattes av universitetslovens kap. 11, eller eksamener som er godkjent som likeverdige med slike eksamener.

Cand.mag.-graden kan bare minst èn av normert studietid.

Departementet kan fastsette at enkelte studier ikke skal gi full uttelling og fastsette de kvalifikasjoner som skal til for å oppnå grad.

§ 4

Om [illegible]

§ 5

Cand.mag.-graden er tildelt på grunnlag av følgende eksamener:

Navn: Fødselsdato

Utdanningsretning	Institusjon	Avsluttet	Resultat
		årstall	
		årstall	
		årstall	
		årstall	
		årstall	
		årstall	

Spesielle opplysninger:

Document 4.1. *Candidatus/a Magisterii (Cand. Mag.)* Degree Awarded by *Regionale Hogskoler* (Regional Colleges)

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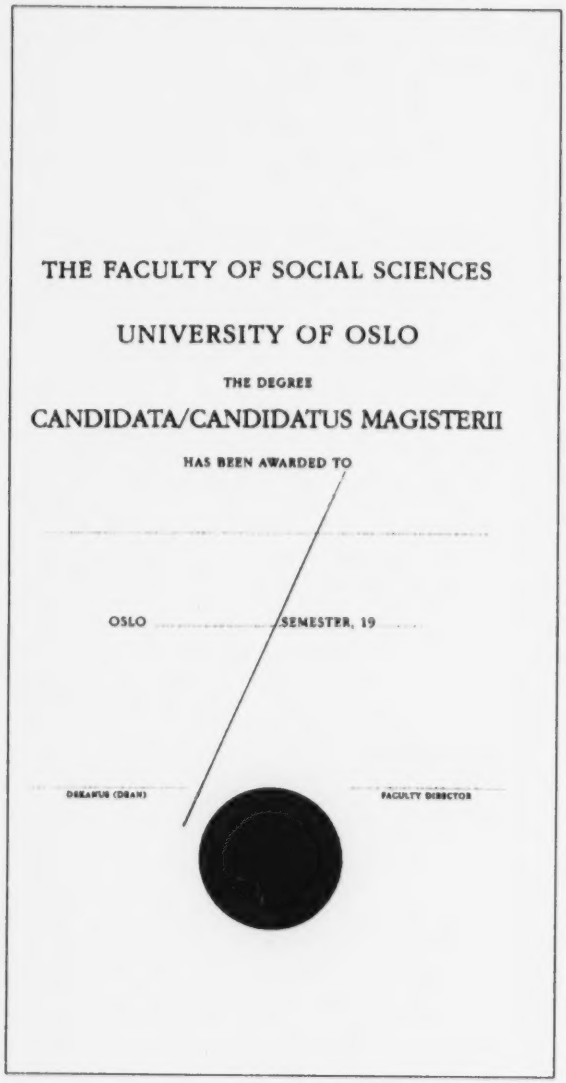

THE FACULTY OF SOCIAL SCIENCES

UNIVERSITY OF OSLO

THE DEGREE

CANDIDATA/CANDIDATUS MAGISTERII

HAS BEEN AWARDED TO

OSLO ..... SEMESTER, 19 ....

DEKANUS (DEAN) FACULTY DIRECTOR

The *cand.mag.* degree at The Faculty of Social Sciences
University of Oslo

The *cand. mag.* degree is a first degree in the social sciences. It is the basis for advanced studies in the social sciences at the university level.

Admission to the degree course requires meeting general university entrance requirements and completing the preliminary examination (*examen philosophicum*) in the history of philosophy, logic & communication, and the philosophy of science.

Length of the degree course is seven semesters full-time study after *examen philosophicum*. It is normally awarded after completing examinations in three subject areas. The following combinations lead to a *cand. mag.* degree:

1. One *mellomfag* (Intermediate course) and 2 *grunnfag* (Foundation courses)*
2. Two *mellomfag* (Intermediate courses) and 1 *semesteremne* (Semester course)
3. One *mellomfag* (Intermediate course), 1 *grunnfag* (Foundation course), and 2 *semesteremner* (Semester courses)

Examinations: Candidates must pass examinations at the end of *semesteremne, grunnfag,* and *mellomfag* courses. These examinations consist of one or more written examinations and an oral examination. Semester reports, project work and group work can also form part of the course work.

Grades: The grading scale for the majority of exams ranges from 1.0 (highest) to 4.0 (lowest pass mark) with the following categories:

Laudabilis prae ceteris	1.0 – 1.5
Laudabilis	1.6 – 2.5
Haud illaudabilis	2.6 – 3.2
Non contemnendus	3.3 – 4.0

The grade Laudabilis prae ceteris (1.0 – 1.5) is very rarely obtained by students at this level. In most subjects, the average *grunnfag* mark is 2.7.

Some examinations use a Pass/Fail *(Godkjent/Ikke godkjent)* grading scale.

Degrees: A *cand. mag.* degree in social sciences requires that at least two of the subjects must be in the social sciences. A minimum of one Foundation course must have been taken in the Faculty of Social Sciences at the University of Oslo.

Examinations from other higher education institutions can be used as part of the *cand. mag.* degree if they meet the academic requirements of the Faculty.

* *grunnfag* (Foundation course) requires 2 semesters full-time work in 1 subject
mellomfag (Intermediate course) requires 3 semesters full-time work in 1 subject
semesteremne (Semester course) requires 1 semester full-time work in 1 subject

UNIVERSITY OF OSLO
THE FACULTY OF SOCIAL SCIENCES

Date of birth .....

Date of matriculation .....

Was awarded the degree candidata/candidatus magisterii (cand. mag.) by the Faculty of Social Sciences .....

Have satisfactorily passed the following examinations:

Examination	Date	Grade	Institution
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

The candidate passed the following additional examinations at the University of Oslo:

Examination	Date	Grade
.....	.....	.....
.....	.....	.....

Notes .....

Document 4.2. ***Candidatus/a Magisterii (Cand. Mag.)*** **Degree Awarded by the University of Oslo (English Version)**

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ral sciences. The university matriculation requirements may be met in a variety of upper secondary school programs. See Chapter III for details.

Universities and university-level institutions do not have a centralized application processing center. Each faculty processes applications for admission independently, so when students wish to change faculties within an institution, they must reapply.

Grading at the Tertiary Level

Grading in Norway is somewhat uniform at the tertiary-level. Most universities and specialized university-level institutions use the 1.0 to 6.0 scale described below. Grading practices for university faculties and certain specialized university-level institutions that use other grading practices are noted in the institutional profiles or in the appropriate sections of Chapter V, "Education by Fields of Study."

The 1.0 to 6.0 scale defines 1.0 as the best possible grade and 4.0 as the minimum passing grade. Grades of 4.1 to 6.0 do not appear on the transcript. Some courses are graded on a *bestått/ikke bestått* (pass/fail) basis. Degrees are classified according to the following scale:

- *laudabilis prae ceteris* or *særdeles tilfredsstillende* (excellent)—1.0 to 1.5
- *laudabilis* or *meget tilfredsstillende* (very good)—1.6 to 2.5
- *haud illaudabilis* or *tilfredsstillende* (satisfactory)—2.6 to 3.2
- *non contemnendus* or *noenlunde tilfredsstillende* (passable)—3.3 to 4.0
- *contemnendus* or *ikke tilfredsstillende* (failure)—4.1 to 6.0

Very rarely does a student achieve a degree classification of *laudabilis prae ceteris*. Until very recently, students achieving this classification were presented to the Norwegian king.

Students earning the minimum grade of 4.0 are eligible for graduation. They are theoretically admissible to an advanced degree program. Due to limited capacity, however, admission to many advanced degree programs requires a grade of 2.5 to 2.7 in the subject studied in the basic degree program that the student wishes to study at an advanced level. In light of this information, grading practices used at most universities and specialized university-level institutions are supplied below.

University Grading	Suggested US Equivalent
1.0–2.3	A
2.4–2.7	B
2.8–3.2	B-,C+
3.3–4.0	C
4.1–6.0	F

Structure of Degree Programs

After completion of upper secondary school, students may choose to study in the fields of arts and sciences, or they may elect to study in a professionally oriented degree program.

Class attendance at universities is, in some cases, not obligatory; students may attend any number of lectures to prepare for examinations. Successful completion of examinations results in the student's earning Norwegian credit units, or *vekttall*. Fulltime study for one semester is defined as enrollment in coursework representing 10 *vekttall*. Degree programs are made up of specified numbers of *vekttall* in specified subjects.

The Basic University Degree in Arts and Sciences

The basic university degree in the arts and sciences is the *candidatus/candidata magisterii (cand. mag.)*—the *candidatus* for male students and the *candidata* for female students. Only the Faculties of Arts, Mathematics and Natural Sciences, and Social Sciences award the university *cand. mag.* degree. The *cand. mag.* is composed of a number of *vekttall* completed over 3½ to four years of study in specified subjects; or the introductory program known as the *examen philosophicum* (philosophical examination) plus blocks of study known as the *grunnfag* (foundation subject), *mellomfag* (intermediate subject), *storfag* (major subject), *semesteremne* (semester course) or *delfag* (partial subject), or *halvsemesteremne* (half-semester course). Many university faculties report completed coursework in terms of these blocks of study. Each block, however, represents a specified amount of *vekttall*.

The minimum requirements for the university-awarded *cand. mag.* include the following: 1) one year of residency at the university awarding the degree; 2) *examen philosophicum*; 3) *grunnfag* com-

pleted at any university or college; 4) *mellomfag* completed at one of the four universities; and 5) approved elective subjects completed at the college or university which make up the balance of the $3\frac{1}{2}$ or four-year program.

- *Examen Philosophicum* (Philosophical Examination). The *examen philosophicum* (*ex. phil.*) is a preliminary examination required by the majority of Norwegian university faculties. (University degree programs not requiring this examination are noted in the institutional profiles.) It is usually taken upon completion of an introductory program studied during the first semester of enrollment. In most faculties it must be passed before further examinations can be attempted. The universities have different arrangements for administering the *ex. phil.* In some cases, students are able to choose between a written examination based on study of required topics (*sjølstudiumsvarianten*) and an oral examination based on a research paper (*normalvarianten*).

  The curriculum for the University of Oslo's *ex. phil.*, for example, consists of two parts: 1) history of philosophy and history of science (eight philosophers—Plato, Aristotle, Galileo, Descartes, Hume, Kant, Hegel, and Wittgenstein—are studied in detail); and 2) logic and philosophy of science (theory of knowledge, conception of the world, ethics, and social-political theory).

  Each university prepares its own *ex. phil.* curriculum. The curriculum is the same for all students regardless of the faculty in which the student enrolls. The *ex. phil.* represents completion of the equivalent of different numbers of *vekttall* depending on which faculty and university the student attends. The University of Oslo does not assign *vekttall* for the *ex. phil.* The University of Bergen assigns 5 *vekttall* for the *ex. phil.* for all students, and the University of Trondheim assigns 7 *vekttall*. At the University of Tromsø, the *ex. phil.* represents completion of the equivalent of 10 *vekttall*. The Norwegian State Educational Loan Fund considers enrollment in the semester leading to the *ex. phil.* to be fulltime study.
- *Forberedende Prøver* (Preparatory Examinations). Preparatory examinations specific to the selected field of study are required of students enrolled in some *cand. mag.* programs. These exams are usually taken during the same semester as the *ex. phil.* Preparation for them is part of the degree programs. If required, they must be passed before additional faculty examinations are attempted.

  For example, the general course in phonetics and linguistics is required of students wishing to complete a basic degree in languages. The University of Oslo and the University of Tromsø do not assign a specific amount of *vekttall* to this examination; the Universities of Bergen and Trondheim assign 5 and 4 *vekttall*, respectively.

  In addition, the University of Bergen requires of all other students in the Faculty of Arts a 5-*vekttall* examination in the history and objectives and functions of the humanities. Similarly, students pursuing basic degrees in the Faculties of Social Sciences and Mathematics and Natural Sciences of the University of Bergen are required to complete a 5-*vekttall* course in either methodology of the social sciences or basic mathematics.
- *Grunnfag* (Foundation Subject). The *grunnfag* consists of two semesters of study in a single subject area and represents the equivalent of 20 *vekttall*. The *grunnfag* is not considered complete and will not be noted on the student's record until the final *grunnfag* examination is passed. Normally, no partial credit is awarded. Lectures and seminars are offered but no specific course examinations are given.

  The *grunnfag* in psychology, for example, aims to give students a basic understanding of modern psychology. There are lectures and seminars. The syllabus covers an introduction to psychology, cognitive psychology, human development, social psychology, abnormal psychology, and the history of psychology. Students are encouraged to read beyond the recommended reading list. The exam consists of two 8-hour exams and an oral exam (University of Oslo Catalog).
- *Mellomfag* (Intermediate Subject). The *mellomfag* consists of a total of three semesters of study in a single subject and represents the equivalent of 30 *vekttall*. It includes the 20-*vekttall grunnfag*. Students may choose to take the final *mellomfag* examination at the completion of the three semesters of study (skipping the *grunnfag* examination), or they may take a *grunnfag* examination

after two semesters, and the *mellomfag* examination after the third semester. The *mellomfag* is not considered complete and will not be noted on the student's record until the final examination is passed. An example of subject matter included in a *mellomfag* that builds on the curriculum for the *grunnfag* follows.

In the *mellomfag* in psychology, students specialize in either social psychology or developmental psychology. Students submit a semester report of 15-20 pages that are related to their area of specialization. The *mellomfag* also covers methodology, psychology as a discipline, applications of psychology, and psychology as a teaching subject. The exam consists of an 8-hour written exam and an oral exam. The semester report counts two-thirds of the final mark, and the exams (mainly the written) make up the remaining one-third (University of Oslo Catalog).

- *Storfag* (Major Subject). The *storfag* consists of four semesters of study in a single subject and represents the equivalent of 40 *vekttall*, including the 30-*vekttall* for the *mellomfag* and *grunnfag*.

  The *storfag* may be completed according to one of three models:

  1) one examination after four semesters of study;

  2) a *grunnfag* examination after two semesters, plus a *mellomfag* examination after one additional semester, plus the *storfag* examination after the fourth and final semesters; or

  3) a *grunnfag* examination after two semesters of study, plus the *storfag* examination after an additional two semesters. The *storfag* is not considered complete and will not be noted on the student's record until the final examination is passed.
- *Semesteremne* (Semester Course) or *Delfag* (Partial Subject). A *semesteremne* or *delfag* is a one-semester program in a single subject in a field different from the subject studied in the *grunnfag* or *mellomfag*. It is the equivalent of 10 *vekttall*.
- *Halvsemesteremne* (Half-Semester Course). A *halvsemesteremne* is a half-semester program in a single subject in a different field than that studied in the *grunnfag* or *mellomfag*. It represents the equivalent of 5 *vekttall*.

Faculties Offering the Basic University Degree in Arts and Sciences

Historisk-Filosofisk Fakultet (Faculty of Arts)

The faculties of arts of each of the universities utilize the same structure for the *cand. mag.* degree. Stated combinations of *grunnfag*, *mellomfag*, etc. must be completed to earn the degree of *cand. mag.* However, the University of Trondheim is unique. It assigns credit values, or *vekttall*, to smaller course units.

At all four universities, the *cand. mag.* degree in the Faculty of Arts requires a minimum of four years of fulltime study or its equivalent, including the *examen philosophicum* and study in at least two subjects within the subject area of the Faculty of Arts (one studied for at least three semesters *[mellomfag]* and the other for at least two semesters *[grunnfag]*). The remaining three semesters of study are comprised of elective subjects.

The combinations of examinations listed on page 37 make up the minimum requirements for a *cand. mag.* degree. All combinations comprise the *ex. phil.* plus study representing 70 *vekttall*. The examinations may be taken in any order, although the *ex. phil.* is normally taken first.

Samfunnsvitenskaplig Fakultet (Faculty of Social Sciences)

The *cand. mag.* degree offered by university faculties of social sciences follows the same basic structure as *cand. mag.* degrees offered by faculties of arts. It represents completion of the *ex. phil.* plus study representing 70 *vekttall*, or four years of fulltime study. Three subjects are studied, two of which must be in the Faculty of Social Sciences. One social science subject must be studied for at least three semesters, and the other for at least two semesters. The third subject may be taken from any faculty.

To obtain the degree of *cand. mag.* in the Faculty of Social Sciences, the student must complete one of the following combinations of study blocks (presented in Table 4.1, items 4, 6, and 7):

1. *ex. phil.* + 2 *mellomfag* + 1 *semesteremne*
2. *ex. phil.* + 2 *grunnfag* + 1 *mellomfag*
3. *ex. phil.* + 1 *grunnfag* + 1 *mellomfag* + 2 *semesteremner*

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Of the four universities, only the Faculty of Social Sciences of the University of Oslo also offers a basic degree program in economics, known as the degree of *examen oeconomiae (exam. oecon.)*. This degree includes the *ex. phil.* plus six semesters of study, or 60 *vekttall*, all completed in the economics department.

Holders of the *exam. oecon.* may further their education to the second-level professionally oriented degree of *candidatus/candidata oeconomiae* (candidate in economics) after completion of an additional two years of economics study.

Matematisk-Naturvitenskaplig Fakultet
(Faculty of Mathematics and Natural Sciences)

The faculties of mathematics and natural sciences at the four universities organize their *cand. mag.* degree program according to *vekttall* (credits) rather than by study blocks (e.g., *grunnfag, mellomfag*).

The *cand. mag.* degree is earned through completion of the *ex. phil.*, plus completion of courses totalling at least 65 *vekttall* in approved combinations of subjects. Of the 65 *vekttall*, 20 must be in one subject and 30 in another subject. The remaining 15 may be in several different subjects.

Advanced University Degrees in Arts and Sciences

Completion of advanced university degrees in arts and sciences represents the accumulation of a higher, specialized body of knowledge beyond the level of the basic university degree. Advanced degrees generally include coursework, examinations, supervised independent research, and a thesis. Completion of an advanced degree qualifies graduate to apply to doctoral programs in Norway.

Advanced university degrees in arts and sciences are offered only by the faculties of arts, mathematics and natural sciences, and social sciences. These degrees are based on the *cand. mag.* degree and may be earned as a result of extension of study in the subject that was studied to at least the level of *mellomfag* (three semesters of study) for the *cand. mag.* degree. Advanced study of 1½ or two years, examinations, and independent research and a thesis culminate in a *hovedfag* (main subject) examination with the award of either a *cand. philol.*, *cand. scient.*, or *cand. polit.* degree.

The *hovedfag* in the Faculties of Arts and Social Sciences requires four semesters of advanced study in the main subject (the same subject studied for the *mellomfag* examination in the *cand. mag.* degree) and represents the equivalent of 40 *vekttall*. It normally includes an examination and a *hovedoppgave* (thesis) based on supervised independent research, the examination, and thesis, each worth the equivalent of 20 *vekttall*.

The *hovedfag* in the Faculty of Mathematics and Natural Sciences requires three semesters of advanced study in the main subject and represents the equivalent of 30 *vekttall*. It normally includes a 10-*vekttall* examination plus a 20-*vekttall hovedoppgave* based on supervised independent research.

Advanced degrees of this type, and the faculties through which they may be earned are listed below:

1. Faculty of Arts—*candidatus/a philologiae (cand. philol.)*.
2. Faculty of Mathematics and Natural Sciences—*candidatus/a scientiarum (cand. scient.)*. The *cand. scient.* replaced the degree of *candidatus realium (cand. real.)*, which was awarded through 1985.
3. Faculty of Social Sciences—*candidatus/a rerum politicarum (cand. polit.)*.

More common in past years, faculties of arts and social sciences also award the degree of *magister artium (mag. art.)* in a limited number of subject areas. This degree is considered in Norway to be at the same level as the three degrees listed above, but is more specialized. It has a fixed curriculum, but no obligatory coursework. The main requirement is a thesis equivalent to 40 *vekttall* that must be defended in two public lectures. Admission to a *mag. art.* program is based on a *cand. mag.* degree with minimum grades of 2.5 in the *mellomfag* and supporting subjects, such as two *grunnfag*. A minimum grade of 2.5 must be achieved in the *mag. art.* thesis and public lectures.

Professionally Oriented Degrees

Embetsstudier, or professionally oriented degrees, lead to qualification for a specific profession. Study is completed mainly in one department throughout the student's university academic career. The degree of *cand. mag.* is seldom awarded at an intermediate step during the completion of this type of degree program.

Embetsstudier programs offered and degrees being awarded as of 1993 are listed in Table 4.2.

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Master's Degrees

A relatively new addition to Norway's higher education system is the master's degree. Since the later 1980s, the Ministry of Education, Research and Church Affairs has authorized the Norwegian School of Management (Handelshøyskolen BI), the Norwegian School of Economics and Business Administration (Norges handelshøyskole), The Agricultural University of Norway (Norges landbrukshøgskole), and the four universities to award various master's degrees.

Master's degrees provide education with an international orientation. Instruction is in English for the required one to two years of study. Admission generally requires a bachelor's degree or equivalent from British or US educational systems for international students, or the *cand. mag.* degree for Norwegian students (in most cases) or its equivalent. Content and structure of master's degrees vary; most include coursework and a thesis.

The master's degrees listed in Table 4.3 are presently authorized; several more are in the planning stages.

Doctoral Degrees

The highest degree awarded by universities and specialized university institutions is the degree of *doctor*. Two types of doctor degrees, referred to here as "traditional" and "new," exist in Norway.

Traditional doctor degrees include the *doctor agricolae (dr. agric.)* in agriculture, the *doctor philosophiae (dr. philos.)* awarded in many fields, the *doctor technicae (dr. tech.)* awarded primarily in engineering-related areas, and the *doctor medicinae veterinariae (dr. med. vet.)* in veterinary medicine. This type of doctoral degree, earned after many years of independent research, culminates in a dissertation. Research for the dissertation is conducted outside of university enrollment. Few people pursue traditional doctoral degrees today, though they are still offered.

The degree of *licentiate (lic.)* was offered from 1953 on. However, only the University of Oslo still awards this degree. Most institutions discontinued this degree in the 1970s. The *lic.* included one year of coursework in a major subject and in a minor subject, plus a thesis for another year. Those with a *lic.* may apply to the university that awarded the degree to request documentation stating the *lic.* degree is at the level of the current doctorates being issued.

The "new" doctoral degree programs were first authorized in 1975. Admission to doctoral study is based on completion of an advanced university degree or a professionally oriented degree or other faculty-approved educational qualifications, plus a description of the project that includes a plan for training, a time schedule, a funding plan, and a proposal for supervision by one or more professors.

Since 1991 training for a doctoral degree is expected to require a three-year period of research training culminating in the submission of a dissertation. Of this period, at least one semester is devoted to organized coursework. Doctoral programs operating from 1975 to 1990 required 2½ years of research training, including coursework.

The dissertation must reflect independent scientific work at a high academic level that contributes new knowledge to the subject and is suitable for publication as part of the academic literature in the subject. No work will be accepted that has been used to complete the thesis requirements in any previously earned degrees, unless the previous work is a minor part of a dissertation that consists of several connected works. Dissertations may be written in Danish, English, French, German, Norwegian, or Swedish.

Doctoral degrees of this type and the fields in which they are awarded are listed in Table 4.4.

The general structure of university studies, excluding master's degrees, is presented in Chart 4.1.

The Universities

The four universities in Norway are public institutions that enjoy a large degree of autonomy. Each university is governed by a Senate chaired by an elected Rector who acts as spokesperson for the institution. The Council of the Senate is the Senate's advisory body in questions of major university policy.

The faculties are an intermediate level between the Senate and the departments. They carry out university policy and planning in teaching and research. In most cases, they are made up of departments which offer instruction in various fields.

Profiles of the four universities follow. Variations in translations and Norwegian spelling are institution-specific.

Table 4.1. Different Study Combinations Leading to University *Cand. Mag.* in the Faculty of Arts

	Sem. 1	Sem. 2	Sem. 3	Sem. 4	Sem. 5	Sem. 6	Sem. 7	Sem. 8
1.	*ex. phil.*	*mellomfag*			*storfag*			
2.	*ex. phil.*	*grunnfag*		*storfag*				*semesteremne*
3.	*ex. phil.*	*storfag*				*grunnfag*		*kand.-sem./kand.-sem.*
4.	*ex. phil.*	*mellomfag*			*mellomfag*			*semesteremne*
5.	*ex. phil.*	*mellomfag*			*mellomfag*			*kand.-sem./kand.-sem.*
6.	*ex. phil.*	*grunnfag*		*grunnfag*		*mellomfag*		
7.	*ex. phil.*	*grunnfag*		*mellomfag*			*semesteremne*	*semesteremne*

Table 4.2. Professionally Oriented Degree Programs

Field	Names of Degrees	Length
Agriculture	*Candidatus/a agriculturae (Cand. agric.)*	5 years
Architecture	*Sivilingeniør (Siv. ing.)* in architecture	5 years
	Sivilarkitekt (Siv. ark.)	5 years
Dentistry	*Candidatus/a odontologiae (Cand. odont.)*	•5 years
Economics	*Candidatus/a oeconomiae (Cand. oecon.)*	2 years^
	Siviløkonom (Siv. øk.)	4 years
Education	*Candidatus/a paedagogiae (Cand. paed.)*•	6 V 2 years
	Candidatus/a paedagogiae specialis (Cand. paed. spec.)•	5 years@
Engineering	*Sivilingeniør (Siv. ing.)*•	4 V 2 - 5 years
Law	*Candidatus/a juris (Cand. juris)*•	5 V 2 - 6 years
Medicine	*Candidatus/a medicinae (Cand. med.)*•	6 or 6 V 2 years
Music	*Candidatus/a musicae (Cand. musicae)*	2 years#
Pharmacy	*Candidatus/a pharmaciae (Cand. pharm.)*•	5 years
Physical Education and Sport	*Idrettskandidat*	2 years#
Psychology	*Candidatus psychologiae (Cand. psychol.)*•	5 - 7 years
Sociology	*Candidatus/a sociologiae (Cand. sociol.)*•	6 years
Theology	*Candidatus/a theologiae (Cand. theol.)*•	6 years
Veterinary Medicine	*Candidatus/a medicinae veterinariae (Cand. med. vet.)*	5 V 2 - 6 years

Note: The degrees with an asterisk are awarded by at least one of the four universities. The other degrees are awarded only by one of the specialized university-level institutions. The length of the degree programs includes one semester of study for the *ex. phil.* when it is a program requirement. Admission to the program marked with a caret (^) is based on a 3 V 2-year *examen oeconomiae* degree. Admission to the program marked with the @ symbol is based on 1V 2 to three years of previous tertiary-level education. Admission to those marked with a # symbol are based on a four-year *candidatus/a magisterii* degree.

Table 4.3. Master' s Degree Programs, 1993

Awarding Institution	Name of Master's Degree	Duration
Handelshøyskolen BI (Norwegian School of Management)	Master of Business Administration (MBA)	11 months
	Master of Science (MSc)	1 or 2 years
Norges handelshøyskole (Norwegian School of Economics and Business Administration)	Master of International Business (MiB)	1 ½ years
Norges landbrukshøgskole (The Agricultural University of Norway)	Master of Science (MSc) in Management of Natural Resources and Sustainable Agriculture	2 years
Universitetet i Bergen (University of Bergen)	Master of Philosophy (MPhil) in Fish Resources and Fishery Management	2 years
	Master of Philosophy (MPhil) in History	2 years
	Master of Philosophy (MPhil) in Histopathology	2 years
	Master of Philosophy (MPhil) in the Medicine of Developing Countries	2 years
	Master of Science (MSc) in Dentistry	2 years
	Master of Science (MSc) in Health Promotion	2 years
Universitetet i Oslo (University of Oslo)	Master of Arts (MA) in Society, Science and Technology	1-1 ½ years
	Master of Philosophy (MPhil) in Special Education	2 years
	Master of Science (MSc) in Dentistry	2 years
Universitetet i Tromsø (University of Tromsø)	Master of Public Health (*Kandidat i folkehelsevitenskap*)	1 year
Universitetet i Trondheim, Norges tekniske høgskole (University of Trondheim Institute of Technology)	Master of Science (MSc) in Marine Technology	1 or 2 years depending on previous education
	Master of Science (MSc) in Petroleum Exploration	
	Master of Science (MSc) in Hydropower Development	

One additional university operated in Norway until 1992: Maharishi International University was affiliated with, but not officially part of, Maharishi International University located in Fairfield, Iowa (United States). The institution in Iowa is a regionally accredited academic institution in the United States, but the institution in Norway was never recognized by educational authorities in Norway and closed in 1992.

Universitetet i Bergen (University of Bergen), Langesgate 1, 5020 Bergen; Tel: +47 55 21 21 13; Fax: +47 55 32 04 45.

The University of Bergen is the second largest university in Norway. It was founded in 1946 as the country's second university, but its history dates back to 1825 with the founding of the Bergen Museum, now part of the university. The university's

Table 4.4. Doctoral Degree Programs, 1993: "New" Type

Name of Credential	Fields in Which Awarded
Doctor artium (dr. art.)	Arts
Doctor ingeniør (dr. ing.)	Engineering and Architecture
Doctor juris (dr. juris)	Law (known at some institutions as *dr. legis.* through 1993)
Doctor medicinae (dr. med.)	Medicine
Doctor odontologiae (dr. odont.)	Dental Medicine
Doctor oeconomiae (dr. oecon.)	Business Administration, Economics, or Management
Doctor psychologiae (dr. psychol.)	Psychology
Doctor rerum politicarum (dr. polit.)	Social Sciences
Doctor scientiarum (dr. scient.)	Mathematics, Agriculture, and Natural Sciences
Doctor theologiae (dr. theol.)	Theology

seven faculties plus the Institutt for praktisk-pedagogikk (Institute of Teacher Training) offer instruction in over 80 subjects. The university today is concentrating resources in marine sciences, sustainable development, ecology, and international health. It also operates one of the largest university clinics in Scandinavia with its connection to a 1400-bed regional hospital and emphasis on medical research.

The University of Bergen Office of International Relations coordinates approximately 30 faculty and student international exchange agreements at such institutions as Memorial University of Newfoundland (Canada); Rutgers State University, University of California-Los Angeles, University of Minnesota, University of California-Berkeley, University of Oregon, University of Washington-Seattle (United States); Universidad de Costa Rica (Costa Rica); University of Khartoum (Sudan); University of Dar es Salaam (Tanzania); Université de Caen (France); Christian Albrechts Universität zu Kiel (Germany); University of York (England); and Tribhuvan University (Nepal).

Research, development, and advanced education may be completed through attached research centers and through a number of more independent national and regional research centers with links to the university: Center for Development Studies, Center for International Health, International Center for Monitoring Fetal Defects, Bergen High Technology Center, Nansen Environmental and Remote Sensing Center, Norwegian Computing Center for the Humanities, Norwegian Social Science Data Services, Norwegian Research Center in Organization and Management, Bergen Scientific Center IBM, Christian Michelsen Institute, and the Norwegian Term Bank (national center for language and terminology).

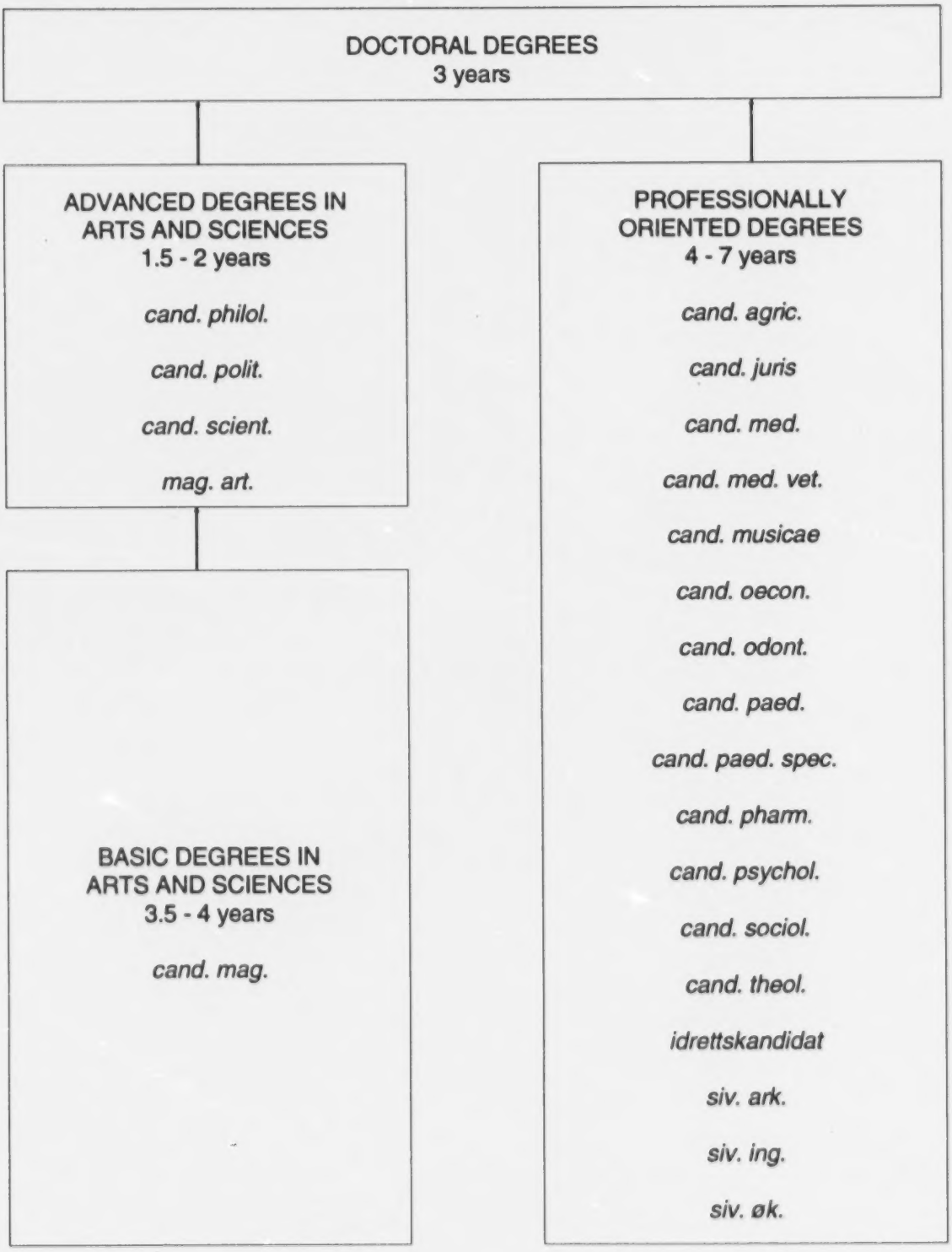
Academic staff (1992): 1158

Enrollment (1992): 14,900; 5% foreign

Faculties, departments and degrees awarded:

- Det historisk-filosofiske fakultet (Faculty of Arts)
  Departments: Engelsk (English), Etno-folkloristisk (Ethno-Folklore Studies), Filosofisk (Philosophy), Germanistisk (Germanic), Historisk (History), Historisk Museum (History Museum), Fonetikk og lingvistikk (Phonetics and Linguistics), Kristensdomskunnskap (Christian Religion Studies), Masse-kommunikasjon (Mass Communication), Religionsvitskap (Religious Sciences), Klassisk (Classics), Kunsthistorisk (Art History), Litteraturvitskapleg (Literature Sciences), Nordisk (Nordic), Romansk (Romance), Russisk (Russian), Teatervitskapleg (Theater Sciences)

Chart 4.1. General Structure of University Degrees



Degrees awarded: *candidatus/a magisterii; candidatus/a philologiae; doctor artium; doctor philosophiae*; Master of Philosophy in History

- Det juridiske fakultet (Faculty of Law)
  Departments: Offentleg rett (Public Law), Privatt (Civil Law)
  Degrees awarded: *candidatus/a juris; doctor juris, doctor philosophiae*

- Det matematisk-naturvitskaplege fakultet (Faculty of Mathematics and Natural Sciences)
  Departments: Botanisk (Botanical), Fysisk (Physics), Fiskeri- og marinbiologi (Fisheries and Marine Biology), Geofysisk (Geophysics), Geologisk, avd. A, avd. B (Geological, Division A and B), Faste jords fysikk (Solid Earth Physics), Informatikk (Informatics), Mikrobiologi og plantefysiologi (Microbiology and Plant Physiology), Kjemisk (Chemistry), Matematisk (Mathematics), Zoologisk laboratorium (Zoological Laboratory), Zoologisk museum (Zoological Museum)
  Degrees awarded: *candidatus/a magisterii; candidatus/a scientiarum; sivilingeniør; doctor scientiarum; doctor philosophiae;* Master of Science in Environmental Engineering (being planned); Master of Science in Solid Earth Physics (being planned)

- Det medisinske fakultet (Faculty of Medicine)
  Departments: 30 in various medical fields
  Degrees awarded: *candidatus/a medicinae, candidatus/a sanitatus* (being planned); *doctor medicinae*; Master of Philosophy in Histopathology; Master of Philosophy in the Medicine of Developing Countries

- Det odontologiske fakultet (Faculty of Dentistry)
  Departments: 14 in various fields of dentistry
  Degrees awarded: *tannpleiereksamen* (dental hygienist examination); *candidatus/a odontologiae; licentiate odontologiae* (last awarded in 1992); *doctor odontologiae, doctor philosophiae*, Master of Science (Dentistry)

- Det samfunnsvitskaplege fakultet (Faculty of Social Sciences)
  Departments: Administrasjon og organisajonsvitskap (Administration and Organization), Geografi (Geography), Informasjonsvitskap (Information Science), Massekommunikasjon (Mass Communication), Samanliknande politikk (Comparative Politics), Sosialantropologi (Social Anthropology), Økonomi (Economics), Sosiologisk (Sociology)
  Degrees awarded: *candidatus/a magisterii; candidatus/a rerum politicarum; doctor rerum politicarum*; Master of Philosophy in Public Administration (planned); *doctor philosophiae*, Master of Philosophy in Social Anthropology (being planned); Diploma in Social Anthropology

- Det psykologiske fakultet (Faculty of Psychology)
  Departments: 5 in various areas
  Degrees awarded: *candidatus/a psychologiae; doctor psychologiae, doctor philosophiae*, Master of Science in Health Promotion

- Institutt for praktisk-pedagogikk (Department of Teacher Training)
  Program offered: *praktisk-pedagogisk eksamen* (practical-pedagogical examination)

Universitetet i Oslo (University of Oslo), Postboks 1081 Blindern, 0317 Oslo; Tel: +47 22 85 0 50; Fax: +47 22 85 88 88.

Founded in 1811, the University of Oslo is the oldest Norwegian university. It was known as the Royal Frederick University until 1939, and is the largest university in the country. It consists of seven faculties and, since 1991, the Institutt for spesialpedagogikk (Institute of Special Education). The Nordisk høgskole for husholdsvitenskap (Nordic School of Nutritional and Textile Sciences), which includes two additional divisions in Sweden, is located at the University of Oslo. In addition, the university includes a number of separate institutions and centers: 17 museums, 4 hospitals, a biology station, field stations, and the Rosendal Barony estates.

The University of Oslo has traditionally emphasized internationalization. Over the last five to ten years, international activities have expanded considerably, and the university now takes an active part in most areas of international academic cooperation through participation in the ERASMUS and NORDPLUS networks (see Chapter VII for more

information), bilateral exchange agreements, and faculty exchange and joint research projects. The university enjoys special relationships with the Scandinavian studies departments of a number of US universities through the Scandinavian Urban Studies Term and the International Summer School. The university is also engaged in an Eastern European university network program with particular focus on the Baltic states, and participates in development aid programs with universities all over the world.

The university maintains a number of advanced research facilities which attract international researchers and graduate students. Advanced programs in fields such as materials research, biotechnology, Nordic medieval studies, Ibsen studies, development and environment, climate research, cardiology research, medical ethics with technology and human values, etc. are offered.

Academic staff (1992): 1600

Enrollment (1992): 31,500; 7% foreign

Faculties, departments and degrees awarded:

- Det historisk-filosofiske fakultet (Faculty of Arts)
  Departments: Arkeologi, kunsthistorie og numismatikk (Archeology, Art History and Numismatics), Britiske og amerikanske studier (British and American Studies), Filosofisk (Philosophy), Germanistisk (Germanistics), Klassisk og romansk (Classics and Romance), Kultur- og samfunnsfag (Culture and Social Studies), Linguistiske fag (Linguistics), Medier og kommunikasjon (Media and Communication), Musikk og teater (Music and Theater), Nordistikk og litteraturvitenskap (Nordic and Literature Studies), Det norske institutt i Roma (The Norwegian Institute in Rome), Østeuropeiske og orietalske studier (Eastern European and Oriental Studies)
  Degrees awarded: *candidatus/a magisterii; candidatus/a philologiæ; magister artium*; Master of Arts in Society, Science and Technology; *doctor artium, doctor philosophiae*

- Det juridiske fakultet (Faculty of Law)
  Degrees awarded: *candidatus/a juris, doctor juris; doctor philosophiae*

- Det matematisk-naturvitenskapelige fakultet (Faculty of Mathematics and Natural Sciences)
  Departments: Teoretisk astrofysikk (Theoretical Astrophysics), Biologisk (Biology), Farmasøytisk (Pharmaceutics), Fysisk (Physics), Geophysikk (Geophysics), Geografisk (Geography), Geologi (Geology), Informatikk (Informatics or Computer Science), Kjemisk (Chemistry), Matematisk (Mathematics)
  Degrees awarded: *candidatus/a magisterii; candidatus/a pharmaciae; candidatus/a scientiarum; sivilingeniør; doctor scientiarum; doctor philosophiae*

- Det medisinske fakultet (Faculty of Medicine)
  Degrees awarded: *candidatus/a medicinae; doctor medicinae, doctor philosophiae*

- Det odontologiske fakultet (Faculty of Dentistry)
  Degrees awarded: *candidatus/a odontologiae*; Master of Science in Dentistry; *doctor odontologiae, doctor philosophiae*

- Det samfunnsvitenskapelige fakultet (Faculty of Social Sciences)
  Departments: Pedagogisk forskningsinstitutt (Educational Research Institute), Psykologisk (Psychology), Institutt og museum for antropologi (Department and Museum of Anthropology), Sosialøkonomisk (Economics), Sosiologi (Sociology)
  Degrees awarded: *candidatus/a magisterii; examen oeconomiae; candidatus/a oeconomiae; candidatus/a paedagogiae; candidatus/a psychologiae; candidatus/a sociologiae; candidatus/a rerum politicarum; magister artium; doctor rerum politicarum; doctor psychologiae, doctor philosophiae*

- Det teologiske fakultet (Faculty of Theology)
  Degrees awarded: *candidatus/a theologiae, doctor theologiae, doctor philosophiae*

- Institutt for spesialpedagogikk (Institute of Special Education)
  Degrees awarded: *candidatus/a pedagogiae spesialis*; Master of Philosophy in Special Education

Universitetet i Tromsø (University of Tromsø), Breivika 9037 Tromsø; Tel: +47 77 64 40 00; Fax: +47 77 64 49 00.

The university was founded in 1968 and officially opened in 1972. It is Norway's youngest and smallest university, and the world's northern-most university. It was created to strengthen education offered to those living in the north of Norway and provides the region with highly qualified professionals. Because of its small size, the university does not strive to offer education in all fields; rather it offers new and experimental ways of teaching and learning and close relationships between students and teachers.

Many of the university's research units devote resources to questions of importance to the northern region, and to the arctic region in particular. Research units include the Roald Amundsen Center of Arctic Research, Center for Sámi Studies, and the Center for Environment and Development Studies of Tromsø.

The University of Tromsø has faculty and student exchange agreements with the Technische Universität Hamburg-Harburg (Germany); Uniwersytet im Adama Mickiewicza w Poznaniu (Poland); and Bowman Grey School of Medicine of Wake Forest University, University of Wisconsin-Madison (United States); etc.

Even though the term "faculty" may be used in the name of the university's academic units, the faculty model is not used at the University of Tromsø. Departments (institutes), schools, and faculties are equal units, except for the Norwegian College of Fishery Science which is a semi-autonomous unit founded in 1972. It was integrated into the University of Tromsø in 1988 and is considered the major national center for fisheries research and education.

Academic staff (1992): 500 plus 100 part-time teaching faculty

Enrollment (1992): 5,409 students; 5% foreign. Students from northern Norway receive special preference for admission to certain studies, such as law, medicine, and psychology.

Faculties, departments, and degrees awarded:

- Avdeling for praktisk-pedagogisk utdanning (Department of Practical Teacher Training)
  Programs offered: *praktisk-pedagogisk eksamen* (practical-pedagogical examination); *praktisk-pedagogisk eksamen for yrkesfaglærere* (practical-pedagogical examination for vocational subject teachers)

- Fagområdet medisin (Faculty of Medicine)
  Degrees awarded: *candidatus/a magisterii; candidatus/a scientiarum; sivilingeniør; candidatus/a medicinae; kandidat i folkehelsevitenskap* (Master of Public Health); *kandidat i sykepleievitenskap* (Candidate in Nursing Science); Diploma in Health Economics; *doctor philosophiae; doctor medicinae; doctor scientiarum*

- Institutt for biologi og geologi (Department of Biology and Geology)
  Degrees awarded: *candidatus/a magisterii; candidatus/a scientiarum; sivilingeniør; doctor philosophiae; doctor scientiarum*

- Institutt for matematiske realfag (Department of Mathematical Sciences)
  Degrees awarded: *candidatus/a magisterii; candidatus/a scientiarum; sivilingeniør; doctor scientiarum; doctor philosophiae*

- Institutt for rettvitenskap (School of Law)
  Degrees awarded: *candidatus/a juris; doctor juris* (*doctor legis* discontinued in 1993); *doctor philosophiae*

- Institutt for samfunnsvitenskap (Department of Social Sciences)
  Degrees awarded: *candidatus/a magisterii; candidatus/a philologiae; candidatus/a rerum politicarum; candidatus/a psychologiae; doctor artium; doctor philosophiae; doctor psychologiae; doctor rerum politicarum*

- Institutt for språk og litteratur (School of Languages and Literature)
  Degrees awarded: *candidatus/a magisterii; candidatus/a philologiae; doctor artium; doctor philosophiae*

- Norges fiskerihøgskole (Norwegian College of Fishery Science)
  Degrees awarded: *candidatus/a magisterii; candidatus/a rerum politicarum; candidatus/a scientiarum; doctor philosophiae; doctor rerum politicarum; doctor scientiarum.* In addition, a unique five-year *fiskerikandidat* (fishery science candidate) credential is awarded. The first three years

of this program concentrate on physical and natural sciences, the fourth year on the chosen area of specialization, and the fifth year consists of research and thesis preparation.

- Tromsø Museum, Institutt for museumsvirksomhet (Department for Museum Operations)

Universitetet i Trondheim (University of Trondheim), 7034 Trondheim; Tel: +47 73 59 80 00; Fax: +47 73 59 80 90.

Established in 1968, the university acts as a coordinating body for four separate academic and scientific units: the Museum, the College of Arts and Science, the Norwegian Institute of Technology, and the Faculty of Medicine. Each institution functions as a separate administrative unit, awarding its own degrees and managing separate budgets. Students apply to the separate units rather than to the university as a whole. Except for the Museum, the three units are described separately, below.

Den allmennvitenskapelige høgskolen/AVH (College of Arts and Sciences); University Center, 7055 Dragvoll, Trondheim; Tel: +47 73 59 65 00; Fax: +47 73 59 66 28.

AVH was founded in 1922. It is comprised of the Faculties of Arts, Mathematics and Natural Sciences, and Social Sciences which are further divided into 26 departments plus the Institute of Teacher Training. AVH does not officially use the terms *grunnfag, mellomfag*, etc. It uses *vekttall*, except for some advanced degree programs.

Academic staff (1992): 300

Enrollment (1992): 7,087; foreign 3.5%

Faculties, departments, and degrees awarded:

- Det historisk-filosofiske fakultet (Faculty of Arts)
  Departments: Engelsk (English), Filosofisk (Philosophy), Germanistisk (Germanic), Historisk (History), Anvendt språkvitenskap (Applied Linguistics), Drama, film og teater (Drama, Film and Theater), Lingvistisk (Linguistics), Musikkvitenskapelig (Music Studies), Nordisk (Nordic), Religionsvitenskapelig (Religious Studies), Romansk (Romance Languages), Sosialantropologisk (Social Anthropology)
  Degrees awarded: *candidatus/a magisterii; candidatus/a philologiae; magister artium* (discontinued for new students as of 1992); *doctor artium; doctor philosophiae*

- Det matematisk-naturvitenskapelige fakultet (Faculty of Mathematics and Natural Sciences, also known as the Faculty of Science)
  Departments: Botanisk (Botany), Fysisk (Physics), Informatikk (Informatics or Computer Science), Matematikk og statistikk (Mathematics and Statistics), Kjemisk (Chemistry), Zoologisk (Zoology)
  Degrees awarded: *candidatus/a magisterii; candidatus/a scientiarum; doctor scientiarum; doctor philosophiae*

- Det samfunnsvitenskapelige fakultet (Faculty of Social Sciences)
  Departments: Geografisk (Geography), Idrettshøgskolen (Physical Education College), Økonomi (Economics), Sosiologi og samfunnskunnskap (Sociology), Sosialt arbeid (Social Work), Pedagogisk (Pedagogical), Psykologisk (Psychology)
  Degrees awarded: *candidatus/a magisterii; candidatus/a socionomiae* (discontinued 1993); *candidatus/a rerum politicarum; doctor rerum politicarum; doctor philosophiae*

- Pedagogisk seminar (Institute of Teacher Training)
  Program offered: *praktisk-pedagogisk eksamen* (practical-pedagogical examination)

Norges tekniske høgskole/NTH (Norwegian Institute of Technology); 7034 Trondheim; Tel: +47 73 59 40 00; Fax: +47 73 59 52 37.

Founded in 1910, NTH was incorporated into the University of Trondheim in 1968. It is the largest academic unit of the University with nine faculties offering instruction in 48 departments. In 1950 NTH founded a research institution, SINTEF (Foundation for Scientific and Industrial Research), with which exchanges of specialist staff are made, and laboratories and equipment are shared.

NTH has established close international relationships with the Katholieke Universiteit te Leuven (Belgium); Ecole des Mines; Ecole Superieure du Petrole (France); Universität Karlsruhe (Germany); Technische Universiteit Delft (Netherlands); Georgia Institute of Technology; Massachusetts Institute of Technology; University of California-Santa Barbara; University of Washington (United States).

Academic staff (1992): 807

Enrollment (1992): 7,500; 6% foreign

Faculties: Berg-, petroleums- og metallurgifag (Applied Earth Sciences and Metallurgy); Arkitektur (Architecture); Kjemi og kjemisk teknologi (Chemistry and Chemical Technology); Bygningsingeniørfag (Civil Engineering); Økonomi og arbeidslivsvitenskap (Economics and Industrial Management); Electro- og datateknikk (Electrical Engineering and Computer Science); Marin teknikk (Marine Technology); Maskinteknikk (Mechanical Engineering); Fysikk og matematikk (Physics and Mathematics)

Degrees awarded: *sivilarkitekt*; *sivilingeniør*; Diploma in various fields (1 year program for students from developing countries; admission requires a bachelor's degree or equivalent); Master of Science in Marine Technology; Petroleum Exploration; Hydropower Development (1 year for above diploma holders, 2 years for students with a bachelor's degree or equivalent); Master of Science in Technology Management (first students expected in 1994; 1½ years offered in cooperation with Norges handelshøyskole; admission based on *sivilingeniør* degree); *doctor technicae; doctor ingeniør*

Det medisinske fakultet (Faculty of Medicine); Medisinsk teknisk senter 7005 Trondheim; Tel: + 47 73 59 88 59; Fax: +47 73 59 88 65.

The Faculty of Medicine was established in 1975. Between 1975 and 1993, it offered clinical medical education to students who completed preclinical studies at other universities. Since 1993 it has offered complete preclinical and clinical studies in a program requiring a minimum of 5½ years. The faculty admits 60 new students per year into the integrated medical program which uses the Problem-Based Learning teaching method.

Academic staff (1992): 69

Enrollment (1992): 160

Degrees awarded: *candidatus/a medicinae; doctor medicinae; doctor philosophiae*

The College Sector

The college sector included until August 1994 over 100 institutions that offer education in a variety of fields. As of that date, there will be only 26 merged institutions. It is differentiated from the university sector in that the vast majority of colleges do not have authority to award degrees higher than the basic degree of *candidatus/a magisterii (cand. mag.)*.

College-sector institutions offer programs one semester to four years in length. They offer *grunnutdanning* (basic education) in vocation-specific fields, and award academic credentials referred to as either the *høgskolekandidat* (college candidate) or as credentials of a specific profession (e.g., *allmennlærer* [general subjects teacher], *ingeniør* [engineer], or *sykepleier* [nurse]).

In addition, they offer single subject programs requiring study for one to three semesters. Some of these programs are *videreutdanning* (further education) in the same field or field related to the program in which the basic education was completed. Others, such as *grunnfag* (foundation course) or *mellomfag* (intermediate course), may be used in combination with other educational programs to fulfill the requirements for a regional *cand. mag.* degree.

Many college-sector institutions provide instruction for advanced degrees. Since most colleges are not authorized to award degrees higher than the *cand. mag.*, cooperating university-sector institutions oversee the instruction and award the actual advanced degrees.

Admission Requirements

Admission to colleges and universities requires the same qualifications: successful completion of three years of upper secondary school study in specified subjects. See "The University Sector," earlier, for details on the numerical methods used to select students for admission.

Grading at Colleges

Most colleges use the same grading system as the universities: 1.0 as the best passing grade, 4.0 as the minimum passing grade, and 4.1 to 6.0 as failure.

Some colleges require a minimum grade average of 3.5 for graduation. At least one college (Økonomisk College) requires an average of 3.5 for students to proceed beyond the first year of education. The following US equivalent grading scale is suggested for college sector institutions. The grade of 4.1 to 6.0 will not appear on the transcript.

College Grading	Suggested US Equivalent
1.0–2.0	A
2.1–2.5	B
2.6–3.0	B-/C+
3.1–3.5	C
3.6–4.0	D
4.1–6.0	F

Credentials Awarded by Colleges

Only colleges award the degree of *høgskolekandidat* (college candidate) and the regional *cand. mag.* degree. A few colleges, particularly in fine arts, award institution-specific degrees or certificates. In addition, some award the degrees of *siviløkonom* (business economist) and *sivilingeniør* (civilian engineer). Most colleges offer supplementary academic programs which usually do not lead to a specific degree. These are often termed *påbyggingsstudium* (supplementary studies) or *videreutdanning* (further education).

Høgskolekandidat (College Candidate)

Unified programs concentrating in one field of study, such as economics and business administration, lead to the *høgskolekandidat* (college candidate). These programs prepare students for direct entrance into the labor market or for further academic studies at colleges or universities.

The *høgskolekandidat* degree represents completion of two years of study, or 40 *vekttall*, unless the degree clearly states it is from a three-year, or 60-*vekttall*, program. Students completing a three-year program will have two *høgskolekandidat* degrees: one awarded after the second year, and one awarded after the third year. Sample document 4.3 is a *høgskolekandidat* from a two-year program of study; 4.4. is from a three-year program of study. Terminology for the three-year programs varies widely. (See sample document 4.4 which states that the program is an *ettårig påbyggingsstudium* [one-year supplementary study] leading to a *høgskolekandidat med 3 års økonomisk/administrativ høgskoleutdanning* [college candidate with 3 years of economic/administrative college education]).

Credentials for a Specific Profession

Three types of colleges are multi-field: the *høgskole* (college), the *høgskolesenter* (college center), and the *distriktshøgskole* (regional colleges). The *høgskolesenter* and *distriktshøgskole* are described below. Other colleges offer programs only in specific professional fields, such as *sosialhøgskolen* (social work colleges). These programs and their institutions are discussed in Chapter V.

Table 4.5 lists the profession-specific qualifications awarded by the three types of multi-field, college-sector institutions and the number of years of fulltime study required to earn them. The *høgskolene* (colleges), new institutions to be fully formed by 1994, are discussed earlier in this chapter under "Overview of Higher Education."

- *Candidatus/Candidata Magisterii (Cand. Mag.)* Degree Awarded by *Regionale Høgskoler* (Regional Colleges)

  Between 1981 and 1991, most colleges were authorized to award the degree of regional *cand. mag.* The various colleges of arts and performing arts, military colleges, and the Økonomisk College do not award this degree. This credential is considered equivalent to university-awarded *cand. mag.* degrees. Only public colleges may award the regional *cand. mag.* The regulations for this procedure and the institutions authorized to award the regional *cand. mag.* are provided earlier in "Overview of Higher Education."

  The regional *cand. mag.* represents completion of four years (80 *vekttall*) of higher education with one subject being studied for a minimum of three semesters (*mellomfag*), and another subject being studied for a minimum of two semesters (*grunnfag*), plus three additional semesters of study in elective subjects. Over-

Document 4.4. *Høgskolekandidat* from a Three-Year Program of Study

INSTITUTT FOR
ØKONOMISKE/ADMINISTRATIVE FAG

ved

HØGSKOLESENTERET I NORDLAND

kunngjør at

..... F.nr. .....

har fullført: ***Ettårig påbyggingsstudium i økonomi og planlegging***

og har rett til tittelen

HØGSKOLEKANDIDAT

Med 3 års økonomisk/administrativ høgskoleutdanning.

Bodø, ... d
Void
.....
Faglig leder

HØGSKOLESENTERET I NORDLAND

.....
Studieleder

63

Document 4.3. *Høgskolekandidat* from a Two-Year Program of Study

INSTITUTT FOR
ØKONOMISKE/ADMINISTRATIVE FAG

ved

HØGSKOLESENTERET I NORDLAND

kunngjør at

..... F.nr. .....

har fullført .....

og har rett til tittelen

HØGSKOLEKANDIDAT

Bodø, Void
.....
Faglig leder

HØGSKOLESENTERET I NORDLAND

.....

64

lapping subjects will receive a reduction in the amount of *vekttall* which may apply to the degree, as will study programs with substantial amounts of practical study, such as nursing or physical therapy.

Students pursuing a regional *cand. mag.* degree are not required to take the one-semester introductory program leading to the *examen philosophicum* (philosophical examination), or *ex. phil.*, as is required for students pursuing a university-awarded *cand. mag.* degree. A few colleges offer programs leading to the *ex. phil.* which may be used in partial satisfaction of the requirements for college- or university-awarded *cand. mag.* degrees.

Many college-sector institutions offer programs in the arts, sciences, and social sciences which may be used to satisfy requirements of both university-awarded and regional *cand. mag.* degrees. One-year programs corresponding to *grunnfag* (foundation studies) and three-semester programs corresponding to *mellomfag* (intermediate studies) may be completed at colleges.

One example of how the regional *cand. mag.* degree may be earned is as follows: a student completes a two-year *høgskolekandidat* (college candidate) program in economics and administrative studies which satisfies the *mellomfag* requirement and two years of the four-year requirement, then completes two 1-year programs in unrelated fields, such as history and geography. These two additional years of study satisfy the *grunnfag* and the two final years of the four-year requirement.

The regional *cand. mag.* degree is awarded by the college the student attended for at least one year of education. Sample document 4.1 is the standardized form for the regional *cand. mag.* degree used by all regional colleges awarding this degree. (University sector institutions have separate forms; see sample document 4.2.)

The regional *cand. mag.* is filled out in handwriting and signed by the *rektor* (president) of the college. Each college decides who else countersigns the diploma. The diploma is not valid without the stamp of the college in the space provided above the signatures. On page 3 of the form, a slanted line runs from left to right across the lines that are not filled with text.

- *Pabyggingstudium* (Supplementary Study) and *Videreutdanning* (Further Education) Programs

A variety of supplementary study (*påbyggingsstudium*) and further education (*videreutdanning*) programs usually lead to formal examinations for additional qualification in a field related to the previous educational program completed. Because these programs usually do not represent study in a new academic area, they do not usually satisfy the *cand. mag.* degree requirement of one year of study in a subject other than the subject studied for three semesters.

- *Siviløkonom* (Business Economist) and *Sivilingeniør* (Civilian Engineer)

Some colleges are authorized to award degrees which have until recently been awarded only by universities. Agder distriktshøgskole (Agder Regional College) and Høgskolesenteret i Nordland (Nordland College) award the degree of *siviløkonom*; Høgskolesenteret i Rogaland (Rogaland College), Narvik ingeniørhøgskole (Narvik Engineering College), and Telemark ingeniørhøgskole award the degree of *sivilingeniør*. These programs are discussed in Chapter V.

Advanced Degree Programs

Some colleges offer instruction which leads to university-prepared examinations and university-awarded advanced degrees. For example, Oppland distriktshøgskole (Oppland Regional College) provides *hovedfag* (main subject) studies in education and special education. These programs require a *cand. mag.* degree for admission, and lead to the degree of *candidatus rerum politicarum* awarded by the University of Oslo in the area of education and by the University of Trondheim in the area of special education.

THE *HØGSKOLESENTER* (COLLEGE CENTER)

Within the college system in 1993, four multidisciplinary institutions or college centers existed, which consisted of a consolidation of several smaller institutions located within an area. These institutions were formed in the late 1980s and early 1990s, and will be further consolidated with other institutions by 1994 as part of the "Network Norway" reorganization (see earlier discussion in "Overview of Higher Education").

Table 4.5. Profession-Specific Qualifications Awarded by College Sector Institutions With Years of Study Required

Qualification	Years of Study Required
allmennlærer (general subjects teacher)	4; 3 through 1992
audiograf (audiographer)	2
barnevernspedagog (child welfare worker)	3
bibliotekar (librarian)	3
bioingeniør (bioengineer)	3
datahøgskolekandidat (data college candidate)	2
designkandidat (design candidate)	1 1/2 following 3-year høgskolekandidat
eldreomsorg (geriatric nurse)	1 following *sykepleier*
ergoterapeut (occupational therapist)	3
faglærer (specialized subject teacher)	varies
fysioterapeut (physiotherapist)	3
førskolelærer (preschool teacher)	3
ingeniør (engineer)	2 and 3
jordmor (midwife)	1 following *sykepleier*
kommunalkandidat (local government adminstration candidate)	3
kunstfagkandidat (art candidate)	1 1/2 following 3-year *høgskolekandidat*
næringsmiddelteknolog (food technologist)	3
ortopediingeniør (orthopedic engineer)	3
psykiatrisk sykepleier (psychiatric nurse)	1 following *sykepleier*
radiograf (radiographer)	3
reseptar (prescriptionist)	2 1/2
sosionom (social worker)	3
spesiallærer (special education teacher)	1 for previously qualified teachers
sykepleier (nurse)	3
sykepleier (advanced training nurse)	1 following *sykepleier*
tolk (sign language interpreter)	1
vernepleier (social educator)	3
yrkeslærer (vocational subject teacher)	1; 1/2 through 1992

The profiles of Bislet høgskolesenter (Bislet College), Høgskolesenteret i Nordland (Nordland College), Høgskolesenteret i Rogaland (Rogaland College), and Høgskolesenteret i Vestfold (Vestfold College) are based on information available in 1993. With the further reorganizations of 1994, changes in these four institutions are expected.

- **Bislet Høgskolesenter** (Bislet College), Pilestredet 52, 0167 Oslo; Tel: +47 22 45 40 00; Fax: +47 22 45 40 05.

  Bislet College was founded in October 1991 when the Ergoterapihøgskolen (College of Occupational Therapy) and the Fysioterapihøgskole i Oslo (Oslo College of Physiotherapy) were moved to Pilestredet 56. In 1994 the institution will be renamed Høgskolen i Oslo (Oslo College) and will incorporate 13 additional institutions. See Appendix B. Since August 1992, Bislet College has settled at its present address and has merged the original institutions with the following:
  - Bioingeniørhøgskolen-Rikshospitalet (College of Bioengineering of University Hospital)
  - Ullevål bioingeniørhøgskole (Ullevål College of Bioengineering)
  - Mensendieck-skolen i Oslo høyskole for fysioterapi (Oslo Mensendieck College for Physiotherapy)
  - Oslo lærerhøgskole (Oslo College of Education)
  - Radiografhøgskolen-Rikshospitalet (College of Radiography of University Hospital)
  - Ullevål radioingeniørhøgskole (Ullevål College of Radiography)
  - Sagene lærerhøgskole (Sagene College of Education)
  - Statens høgskole i ortopediteknikk (Norwegian College of Orthotics and Prosthetics)

  Detailed information about each institute, also referred to as department, of Bislet College and the programs each offers may be obtained directly from the institute. Provided below are their telephone numbers:
  - Institute of Teacher Education: +47 22 45 23 00
  - Institute of Medical Laboratory Technology (bioengineering): +47 22 45 41 40
  - Institute of Physical Therapy and Prosthetics/Orthotics: +47 22 45 42 10
  - Mensendieck Therapy Institute: +47 22 45 41 10
  - Institute of Radiography: +47 22 45 41 30

  Programs and their length in years are:
  - *allmennelærer* (general subject teacher) — 4
  - *bioingeniør* (bioengineer, also known as medical laboratory technologist)—3
  - *ergoterapeut* (occupational therapist)—3
  - *fysioterapeut* (physiotherapist)—3 plus one year practical work
  - *Mensendieckutdanning* (Mensendieck physical therapy education)—3
  - *ortopediingeniør* (orthopedic engineer)—3
  - *radiograf* (radiographer)—3

  Further Education (*Videreutdanning*): Various one- and two-semester programs within the fields of teacher education and health care education are available.
- **Høgskolesenteret i Nordland** (Nordland College), Postboks 6003, 8002 Bodø; Tel: +47 75 51 72 00; Fax: +47 75 51 74 57.

  Established in 1969 as Nordland distriktshøgskole (Nordland Regional College), it became the Høgskolesenter in Nordland in 1985. In 1994 the institution will be renamed the Høgskolen i Bodø (Bodø College) and will absorb Nordland sykepleierhøgskole (Nordland College of Nursing) and Bodø lærerhøgskole (Bodø College of Education). Academic units which were formerly known as the Institutt for økonomisk/administrative fag (School of Business Administration) and the Siviløkonomutdanningen i Bodø-SiB (Bodø Graduate School of Business) were consolidated into the Business College of Northern Norway in January 1993. This College has only an English name.

  Academic staff (1992): 110

  Enrollment (1992): 1650 FT; 400 PT

  Programs: Those offered by the college or department follow with the length in years noted in parentheses. One-year programs generally represent *grunnfag* (foundation course) studies; two-year and three-year programs generally result in a *høgskolekandidat* degree, except where noted in italics:
  - Business College of Northern Norway
    - accounting—based on economics and administrative studies (1)
    - business administration teacher training—based on economics and administrative

studies, offered in conjunction with Bodø College of Education (1)
- business economics (1)
- economics and administrative studies (2)
- economics and planning—based on economics and administrative studies (1)
- electronic data processing, and economics (3)
- first-year study for The Agricultural University of Norway (1)
- information technology—based on economics and administrative studies (1)
- business economist degree (*siviløkonom*)—based on two years of previous education in economics and administrative studies. The institution translates this credential as Master of Science in Business. (2)

□ Institutt for Fiskeri og Akvakultur (Department of Fisheries and Aquaculture)
- aquaculture (3, or 2 years following fisheries and aquaculture foundation)
- biology—supplementary education based on 1-year program in biology and chemistry (1)
- biology and chemistry (1)
- export marketing of fish products—based on 2 years of previous education (1)
- fisheries and aquaculture foundation year (1)
- fisheries technology (3, or 2 years following fisheries and aquaculture foundation)
- fisheries economics (3, or 2 years following fisheries and aquaculture foundation)
- natural sciences (1)

□ Institutt for Samfunnsvitenskap (Department of Social Sciences)
- child social work (*barnevernspedagog*) (3)
- health and social administration (1)
- health and social politics *hovedfag* (leads to a *candidatus rerum politicarum* awarded by University of Tromsø, although coursework is completed at Nordland College) (2)
- history (1)
- history—based on 1 year of previous education in history (½)
- journalism (2)
- management for municipal employees (1)
- media, part-time program offered in conjunction with Bodø College of Education (1)
- organization and administration (2)
- personnel management and development (1)
- public politics and administration (1)
- social work (*sosionom*) (3)
- social security administration (1)
- social security administration-advanced course (1)
- welfare sociology (1)

■ **Høgskolesenteret i Rogaland** (Rogaland College); Postboks 2557, 4004 Stavanger; Tel: +47 51 87 41 00; Fax: +47 51 87 43 00.
Founded in 1969 as the Distriktshøgskolen i Rogaland (Regional College in Rogaland), in January 1986 it merged with Stavanger Engineering College. The institution translates its name as Rogaland University. In 1994 the institution's name will change to Høgskolen i Stavanger (Stavanger College) and will absorb six additional institutions. See Appendix B.

Rogaland Research Academy, the result of a cooperative arrangement between the Academy and Rogaland College, organizes doctoral programs in areas of applied engineering, but does not have authorization to award Norwegian doctoral degrees. The Academy has an arrangement with Aalborg University in Denmark to award a Danish Doctor of Philosophy degree upon completion of academic work at Rogaland Research Academy. The degree is issued in English under Danish law. The names of both institutions appear on the degree. Rogaland College is in the process of establishing a similar program with Robert Gordon University in Aberdeen, Scotland.

Academic staff (1992): 140

Enrollment (1992): 2,990 FT; 651 PT (44.6% female; 118 foreign students)

Programs: Those offered, with the length in years noted in parentheses, follow. One-year programs generally represent *grunnfag* (foundation course) studies; two- and three-year programs generally result in a *høgskolekandidat* degree, except where noted in italics:

□ Department of Humanities
- Norwegian (1)
- Norwegian—based on 1 year of previous education in Norwegian (½)
- English (1)
- English—based on 1 year of previous education in English (½)
- French (1)

- French—based on 1 year of previous education in French (½)
- German (1)
- history (1)
- history—based on 1 year of previous education in History (½)

□ Department of Culture and Social Sciences (Other programs, in addition to those listed below, are awaiting approval.)

- cultural analysis—based on 2 years of previous education (1)
- culture and media (2)
- culture administration—based on 1 year of previous education in social sciences (1)
- *examen philosophicum* (½)
- journalism (2)
- environmental work—based on 1 year of previous education in social sciences (1)
- organization and management—based on 3 years of previous education (1). (The institution is seeking approval of this program to count toward 1 year of a *hovedfag* program, and also to expand it to a 2-year complete *hovedfag* program. [See Chapter IV, "Structure of Degree Programs."])
- personnel administration—based on 1 year of previous education in society (1)
- social sciences (1)
- television production—based on 2 years of previous education in journalism or culture and media (1)

□ College of Engineering and Natural Sciences

- Programs leading to the title of *ingeniør* include: building and construction engineering (3, or 2 years for graduates of a *teknisk fagskole*); electroengineering and data processing (3); mechanical engineering and materials technology (3); media engineering (3); petroleum engineering (3).
- One-year programs for additional competence in the following subjects are open to those with the title of *ingeniør* who have not previously specialized in these areas in their *ingeniør* programs: land use planning, medical engineering, petroleum engineering, safety administration, climate technology, and mathematics.
- *Sivilingeniør* (civilian engineer) for graduates of an *ingeniør* program. First offered in 1977; the school gained parliamentary approval to award the degree in 1987 for programs in petroleum engineering, offshore engineering, and data processing. Beginning in 1993, English is the language of instruction (2).
- *Candidatus technicae* (candidate in technology), offered 1982-1987; not governmentally authorized. The program requires 1½ years for graduates of a 3-year *ingeniør* program. Previous graduates of this program may return to Rogaland College for 1 additional semester of study and convert the *cand. tech.* to a *sivilingeniør* degree.

□ Economics and Administrative Area

- accounting and auditing—based on economics and administrative studies (1)
- business economics (1)
- contract administration—additional competence for graduates of an *ingeniør* program (1)
- economics and administrative studies (2)
- economics and informatics—based on economics and administrative studies (1)
- innovation—based on economics and administrative studies (1)
- personnel administration—additional competence for graduates of an *ingeniør* program (1)
- production management—based on economics and administrative studies (1)
- safety administration—additional competence for graduates of an *ingeniør* program (1)

■ **Høgskolesenteret i Vestfold** (Vestfold College), PO Box 500, 3193, Horten; Tel: +47 33 38 26 00; Fax: +47 33 38 29 71.

Vestfold College was founded in August 1991. Former institutions which have been consolidated into this institution are Tønsberg maritime høgskole (Tønsberg Maritime College) and Horten ingeniørhøgskole (Horten College of Engineering). The institution will be renamed Høgskolen i Vestfold (Vestfold College) in 1994 and will absorb Eik lærerhøgskole and Vestfold sykepleierhøgskole. See Appendix B.

Academic staff (1992): approximately 100

Enrollment (1992): 787

Programs: Those offered, with the length in years in parentheses, follow. One-year programs generally represent *grunnfag* (foundation course) studies; 2-year programs result in a *høgskolekandidat* degree, except where noted:

- Programs leading to the *ingeniør* title are:
- mechanical engineering (3)
- mechanical engineering—for graduates of *teknisk fagskole* (2)
- electronics engineering (3)
- electronics engineering—for graduates of *teknisk fagskole* (2)
- power (3)
- power—for graduates of *teknisk fagskole* (2)
- Additional Programs
- administration and management-advanced course (1)
- aspirant course in nautical studies (1)
- aspirant course in technical marine operation (1)
- economics (2)
- fire protection and safety administration-advanced course (1)
- maintenance and safety technology-advanced education (1)
- nautical studies (2)
- organizational development (½-year program completed part-time over 1 year)
- personnel management for the private and public sectors (½-year program completed part-time over 1 year)
- school administration (½-year program completed part-time over 1 year)
- sociology (1)
- technical marine operation (2)
- technology and industrial development-advanced education (1)

DISTRIKTSHØGSKOLENE (REGIONAL COLLEGES)

Regional colleges were established as a part of the Norwegian system of higher education in 1969 as alternatives to universities and university-level institutions which offered only long programs of study. They are multi-field, public colleges in Norway's regional college system that also includes colleges for basic studies in engineering, nursing and health professions, social work, teacher training, etc.

As part of the reorganization of the college sector, these institutions are presently evolving. By 1994 each will become part of a larger institution within a locality which represents a consolidation of several institutions. Two institutions profiled in the previous *høgskolesenter* (college center) section (Høgskolesenteret i Nordland and Høgskolesenteret i Rogaland) are still classified as regional colleges, although they have already undergone some reorganization.

The *distriktshøgskoler* offer programs lasting from one semester to four years in both profession-specific programs and programs in the humanities, social sciences, and sciences. Regional colleges were authorized to award the degree of regional *candidatus/a magisterii* in 1981 (see "Overview of Higher Education").

The formal admission requirements to regional colleges are the same as the admission requirements to universities and other college sector institutions: completion of the college and university matriculation requirements. Admission to regional colleges is competitive, especially in some fields. Certain programs impose selective admission requirements in addition to the normal matriculation requirements.

The Økonomisk College (Economics College, also translated as Oslo College of Business and Economics) is often grouped with *distriktshøgskolene*, but it differs in the following ways: it is under municipal rather than regional jurisdiction; it is the only public institution in Norway that offers both secondary and tertiary-level programs; and it does not have the authority to award the regional *candidatus/a magisterii* degree.

Sixteen institutions in Norway are presently classified as *distriktshøgskoler* (regional colleges). Most of them have a particular niche and offer programs unique to their institution, as well as numerous others offered by several of the other regional colleges. For example, Oppland distriktshøgskole specializes in film and television education, and travel and tourism education. When the 1994 Olympic Winter Games were being conducted in its home, Lillehammer, the college was the post-game user of the large Radio and Television Center that made it one of the leading institutions for distance teaching and allowed it to concentrate on developing part-time and decentralized programs needed in a country with Norway's geographical characteristics.

The regional colleges as of 1992 are listed below. The Høgskolesenteret i Nordland and the Høgskolesenteret i Rogaland are not listed, although they are presently classified as regional colleges. These institutions are described in the previous section. Below the listings for Agder distriktshøgskole and Økonomisk College are the programs which were offered there in 1992. This pro-

vides examples of the types and variety of programs offered by regional colleges.

- **Agder distriktshøgskole** (Agder Regional College); 4604 Kristiansand S; Tel: +47 53 74 27 95 00; Fax: +47 53 74 27 95 01. To become part of Høgskolen i Agder in 1994.
  One-year programs generally represent *grunnfag* (foundation course) studies; 2-year and 3-year programs generally result in a *høgskolekandidat* degree, except where noted in italics in which case the other credentials awarded are noted.
  - analytical chemistry (2)
  - auditing-builds upon economics-administrative studies (1)
  - chemical economics (3)
  - data processing-supplementary education (2)
  - developing countries (1)
  - economics-administrative studies (2)
  - economist-builds upon economics-administrative studies (2)
  - English (1, 1½, or 3)
  - *examen philosophicum* (½)
  - French (1)
  - health and social administration (1)
  - history (1)
  - informatics and mathematical methods (3)
  - management for government employees-advanced administrative education (part-time study over one year)
  - mathematics (1)
  - Norwegian (1-2)
  - phonetics and language knowledge preliminary test (noncredit)
  - public administration (2)
  - public administration and economics-supplementary education (2)
  - scientific studies in mathematics, electronic data processing, and chemistry (1-4)
  - social work (*sosionom*) (3)
  - systems and data processing (2)
  - televised-advanced administrative education (2)
  - social security-advanced administrative education (1)
  - social security-supplementary education (1)
- **Agder ingeniør- og distriktshøgskole** (Adger Engineering and Regional College); Postboks 94, 4801 Grimstad; Tel: +47 37 04 18 11; Fax: +47 37 04 17 11. To become part of Høgskolen i Agder in 1994.
- **Finnmark distriktshøgskole** (Finnmark Regional College); Follumsvei, 9500 Alta; Tel: +47 84 37 600; Fax: +47 84 34 438. To become part of Høgskolen i Finmark in 1994.
- **Høgskolen i Harstad** (Regional College of Harstad); Postboks 2130, Kanebogen; Tel: +47 77 07 02 33; Fax: +47 77 07 43 05.
- **Hedmark distriktshøgskole** (Hedmark Regional College); Postboks 104, 2450 Rena; Tel: +47 62 44 08 00; Fax: +47 62 44 08 07. To become part of Høgskolen i Hedmark in 1994. Operates three campuses located in Blæstad, Evenstad, and Rena.
- **Møre og Romsdal distriktshøgskole** (Møre and Romsdal Regional College); Postboks 308, Molde; Tel: +47 71 25 10 77; Fax: +47 71 21 51 51. To become part of Høgskolen i Molde in 1994.
- **Møre og Romsdal distriktshøgskole** (Møre and Romsdal Regional College); Postboks 188, 6101 Volda; Tel: +47 70 07 70 66; Fax: +47 70 21 51 51. To become part of Høgskolen i Volda in 1994.
- **Nord-Trøndelag distriktshøgskole** (Nord-Trøndelag Regional College); Postboks 145, 7701 Steinkjer; Tel: +47 74 16 66 11; Fax: +47 74 75 23 72. To become part of Høgskolen i Nord-Trøndelag in 1994.
- **Økonomisk College** (Oslo College of Business and Economics); Postboks 2474 Solli, 0201 Oslo 2; Tel: +47 22 43 46 21.
  Founded in 1970 as a branch of the Oslo handelsgymnasium (Oslo Business Upper Secondary School), it is the only public institution offering both tertiary-level and upper secondary school (*videregående skole*) programs. In addition to offering the upper secondary programs in the General Area of Study and the Commercial and Clerical Area of Study (see Chapter III), the handelsgymnasium offers one year of fulltime programs to upper secondary school graduates in the areas of accounting, business administration, management information systems, international marketing with French or German, and executive secretarial. These programs are considered to be secondary study, and are not recognized for transfer credit into tertiary-level programs in Norway.
  - accountancy (2)

- accountancy and auditing (3)
- administration (2)
- Bachelor of International Business (3)
- economics (2)

■ **Oppland distriktshøgskole** (Oppland Regional College); Postboks 1004, 2601 Lillehammer; Tel: +47 61 28 80 00; Fax: +47 61 26 07 50. Known as Høgskolen in Lillehammer in 1994.

■ **Sogn og Fjordane distriktshøgskole** (Sogn and Fjordane Regional College); Postboks 39, 5801 Sogndal; Tel: +47 57 67 6100; Fax: + 47 576 76 100. To become part of Høgskolen i Sogn og Fjordane in 1994.

■ **Telemark distriktshøgskole** (Telemark Regional College); 3800 Bø i Telemark; Tel: +47 35 95 25 00. To become part of Høgskole i Telemark in 1994.

■ **Trondheim økonomiske høgskole** (Trondheim Economics College); 7005 Trondheim; Tel: +47 73 93 04 00; Fax: +47 73 94 42 90. To become part of Høgskolen i Sør-Trondelag in 1994.

■ **Østfold distriktshøgskole** (Østfold Regional College); 1757 Halden; Tel: +47 69 18 54 00; Fax: +47 99 18 63 41. To become part of Høgskole i Østfold in 1994.

Chapter V
EDUCATION BY FIELDS OF STUDY

The procedures for earning credentials in the general areas of arts, sciences, and social sciences are discussed in Chapter IV, "The University Sector." The following are specifics of selected professional fields.

Agriculture

Professional degree programs in agriculture are offered only by the Norges landbrukshøgskole (Agricultural University of Norway; also known as the Norwegian College of Agricultural Science); Postboks 3, 1432 Ås; Tel: +47 64 94 75 00; Fax: +47 64 94 75 05. The institution was founded in 1859 as an educational institution and reorganized in 1897 as a research and educational institution.

Academic staff (1991): 241

Enrollment (1992): 1,600 (50% female); 341 new students. Of entering students 96% complete their studies.

The College awards the degree of *candidatus/a agriculturae (cand. agric.)* and the degree of *sivilingeniør* (civilian engineer) in cartography and engineering. Both degrees require five years of study and 100 *vekttall*. The first two years of study are comprised of mainly basic subjects. Years 3 and 4 consist of applied subjects in the student's chosen area of specialization. Year 5 focuses on the thesis project. The College also offers the following programs:

1. *Candidatus magisterii (cand. mag.)*: 70 *vekttall* program. Authorization to award this degree was granted in 1990.
2. *Praktisk-pedagogisk eksamen* (practical-pedagogical examination): Through spring 1992, this was a one-semester program to train secondary school agriculture teachers (see "Education [Teacher Training] later in this chapter). Since fall 1992, the program requires one year of study.
3. Master of Science in Management of Natural Resources and Sustainable Agriculture: Two-year program. First year (20 *vekttall*) is completed at the institution; research and thesis are done in the home country. English is the language of instruction. Of 25-30 students admitted annually, four to five are Norwegians. Admission is based on a bachelor's degree for foreign students or a *cand. mag.* for Norwegian students.
4. *Doctor scientiarum (dr. scient.)* and *doctor agricolae (dr. agric.)*. The *dr. scient.* degree consists of examinations, a thesis, and a public lecture completed over three years. The *dr. agric.* is a traditional doctoral degree based on independent research leading to a dissertation.

This institution uses the 1.0 to 6.0 scale with 4.0 as the minimum passing grade for individual courses. However, an overall grade average of 3.25 is required for graduation. Based on this information and on data covering a five-year period of recent final overall grade averages received by Norges landbrukshøgskole students, the following scale is recommended:

Norges landbrukshøgskole Grading	Suggested US Equivalent
1.00–1.99	A
2.00–2.39	B
2.40–3.25	C
3.26–4.00	D
4.01–6.00	F

Students complete the five-year *cand. agric.* programs in one of the following areas of specialization: agricultural economics and general agriculture, animal science, food science, forestry, horticulture, landscape architecture, land-use planning and land tenure, natural resource conservation and management, and soil and crop science.

Architecture

The study of architecture may be undertaken at three institutions: The Bergen School of Architecture, also known as the Bergen College of Architecture (Bergen arkitektskole), Postboks 2650, 5026 Bergen, Tel: +47 05 31 46 920; the Oslo School of Architecture, also known as the Oslo College of Architecture (Arkitekthøgskolen i Oslo), Postboks 6768, St. Olavs plass, 0130 Oslo, Tel: +47 22 20 8316; Fax: +47 22 11 1970; and the Norwegian Institute of Technology (see the University of Trondheim in Chapter IV for a complete description). All programs in architecture lead to the degree of *sivilarkitekt* or *siv. ark.* (architect).

The Bergen School of Architecture offers a five-year program divided into two parts: Part 1 is comprised of three years of obligatory coursework with an examination after the third year. Entrance into Part 2 requires success on the Part 1 examination. Part 2 is composed of two years of additional study that includes a thesis project.

The Oslo School of Architecture offers a 5½-year program comprised of four foundation semesters, plus six specialized semesters, plus a one semester final project.

The Faculty of Architecture of the Norwegian Institute of Technology offers a five-year program. A final project is normally completed during the tenth semester.

Graduates of *sivilarkitekt* programs are eligible to apply for advanced programs in architecture leading to the degree of *dr. ingeniør* (doctor engineer). Doctoral programs are offered by both the Oslo School of Architecture and the Norwegian Institute of Technology.

Business and Economics

The subjects of business and economics may be studied at the upper secondary school level in the commercial and clerical subjects area and in the general studies area (see Chapter III), and at the college and university levels in both public and private institutions. Tertiary credentials range from short programs of one year in length to a doctoral degree in the field.

The programs in business and economics are described below. Several of the credentials awarded are translated as "master's" degrees by the awarding institutions. These translations are not the official names of the degrees and should not be confused with the actual master's degrees (see Table 4.3). Following these descriptions is information on the public institution that offers education in the area of business: Norges handelshøyskole (Norwegian School of Economics and Business Administration), a university-level public institution located in Bergen; and information on the private business colleges that offer recognized academic programs, in particular the Handelshøyskolen BI (Norwegian School of Management), Oslo. The programs described have received recognition from the Ministry of Education, Research and Church Affairs, or the NKU for purposes of transfer credit (see Chapter IV, "Tertiary-Level Credentials").

1. *Bedriftsøkonomeksamen* (Business Economics Examination): This examination is administered upon completion of a one-year, 20-*vekttall* introductory program in *økonomisk/administrativt studium* (economics and administrative study). The program generally includes coursework in accounting, mathematics, finance, economics, marketing, computer science, and organizational theory. Students completing the one-year program, and those planning to complete a two- or three-year program in business and economics are awarded this credential after the first year of study. This examination is offered by a number of *distriktshøgskoler*, the Norges handelshøyskole through its extension department, and the Handelshøyskolen BI.
2. *Foretaksøkonom* (Enterprise Economics) program: A one-year, 20-vekttall program for graduates of the *bedriftsøkonom* program offered by Norges handelshøyskole.
3. *Eiendomsmegler* (Real Estate Broker): A one-year, 20-vekttall program begun in 1990, it builds on the *bedriftsøkonom*. Following completion of the program and two years of approved practical experience, graduates may apply for a real estate broker's authorization from the Banking, Insurance, and Securities Commission. The title granted is the *Statsautorisert* (Authorized) Real Estate Broker. This program is offered by the Handelshøyskolen BI.
4. *Markedskandidat* (Market Candidate): This two-year, 40-*vekttall* program in marketing is offered by the Norges markedshøyskole, which is part of the Handelshøyskolen BI. The title has been replaced by the *høyskolekandidat*.

5. *Diplomeksportøkonom* (Diploma in Export Marketing): This 3½-year program is offered by the Norges markedshøyskole which is part of the Handelshøyskolen BI. One and one-half years are spent at a cooperating institution in England, Germany, France or Spain. Total *vekttall* is 60 for the program with Germany and 70 *vekttall* for the others.
6. *Høgskolekandidat* (College Candidate) in *Økonomisk/administrativt fag* (Economics and Administrative Subject): This is a two-year, 40-vekttall program. When it builds on the *bedriftsøkonomeksamen*, as is usually the case, the college candidate program represents one additional year of study. Studies in general business and economics are required, as well as elective studies in a variety of business-related fields such as accounting and auditing, data processing and systems, marketing, organization and administration, and tourism. This degree is awarded by numerous *distriktshøgskoler*, the Handelshøyskolen BI, and by Norges markedshøyskole in various fields of marketing.
7. *Høgskolekandidat* (College Candidate) from a Three-Year Program of Study: A third year in business and economics is available at some *distriktshøgskoler*. It is based upon completion of a two-year *høgskolekandidat* program and represents specialized study in a particular field. Students may concentrate in areas such as accounting, administration and management, auditing, economics, electronic data processing and economics, and public administration and economics. The third year of study may be referred to as *ettårig påbyggingsstudium* (one-year supplementary study) or similar wording. Terminology on the *høgskolekandidat* will attest to the fact that it represents completion of a three-year program.
8. *Diplomøkonom* (Diploma in Business Administration). This is a one-year, 20-*vekttall* program in business administration for *foretaksøkonom* graduates of the Norges handelshøyskole kursvirksomhet (Extension Department). It is also awarded by the Handelshøyskolen BI in a one-year, 20-*vekttall* program which builds on the *bedriftsøkonom* and the *høgskolekandidat*, and is translated as Bachelor of Management. In this final year students may specialize in logistics, accounting and taxes, personnel management, marketing, economics, or European Union policy and economics.
9. *Diplommarkedsøkonom* (Diploma in Marketing): This one-year, 20-*vekttall* program is based on the *markedskandidat* program or the equivalent. As of 1994, the diploma will include the specialization in marketing, public relations or market communication. It is offered by the Norges markedshøyskolen which is part of the Handelshøyskolen BI.
10. *Påbyggningsstudium* (Supplementary Studies): These programs are offered by a number of *distriktshøgskoler* which generally require one-year, 20-*vekttall* of study in a number of business-related areas including business economics analysis, economic administration, informatics and economics, information processing, international economics, management and organizational development for insurance personnel, marketing and internationalization, materials administration, organization and management, personnel management and administration, personnel management and competence development, and tourism.

    Admission requirements to supplementary studies vary from related work experience to one or two years of previous tertiary-level study. The credential awarded, whether it is a *vitnemål* (certificate) or *høgskolekandidat* (college candidate), is dependent upon the combination of programs and the total years completed.
11. *Revisor* (Auditor/Accountant Program, Lower Level): This three-year, 60-*vekttall* program may include the *bedriftsøkonom* and the *høgskolekandidat*. The program is divided into two parts. Part I (40 *vekttall*) includes introductory study in economics, business administration, management, and auditing. Part II consists of 20 additional *vekttall* in fiscal law, general law, and auditing.

    Following completion of the program plus two years of practical experience in auditing and completion of a professional examination known as the *revisoreksamen* (auditor examination), graduates will receive the title of *registrert revisor* (registered auditor). The program is offered by numerous *distriktshøgskolen* and at the Handelshøyskolen BI.
12. *Høyere revisorstudium* (Chartered Accountant Program, Higher Level): Completion of this three-semester program in accounting, auditing, law, and tax law and two years of related work experience qualifies students to apply to

the Ministry of Trade as a *statsautorisert revisor* (authorized accountant).

Admission may be gained through graduation from a professional degree program in economics (*siviløkonom* or *candidatus/a oeconomiae*) or law (*candidatus/a juris*); or graduation from a *høgskolekandidat* (college candidate) program and passage of an examination for qualification as a *revisor* (accountant program, lower level). It is offered by the Norges handelshøyskole.

13. *Siviløkonom* (Business Economist): This professionally oriented degree in the area of business and economics is awarded by two *distriktshøgskolene* (regional colleges), a specialized university-level institution (Norges handelshøyskole), and a private, university-level college (Handelshøyskolen BI). It represents completion of four years of tertiary-level study with all or most subjects in or related to business or economics. The four institutions awarding this degree structure the programs differently.

- *Distriktshøgskolene* Programs: Agder distriktshøgskole (Agder Regional College) and the Høgskolesenteret i Nordland (Nordland College) have recently been authorized to award the degree. In 1994, these became Høgskolen i Agder (Agder College) and Høgskolen i Bodø (Bodø College), respectively. Both admit graduates of the two-year *høgskolekandidat* in business and economics, or those with equivalent education, into a two-year supplementary program leading to the *siviløkonom*. The Høgskolesenteret i Nordland offers its *siviløkonom* program through its Business College of Northern Norway, formed in January 1993 as a consolidation of its Institutt for økonomisk-administrative fag (School of Business Administration) and Siviløkonomutdanningen i Bodø (Bodø Graduate School of Business) units. The Høgskolesenteret i Nordland translates its *siviløkonom* degree as Master of Science in Business.
- The Norges handelshøyskole/NHH (Norwegian School of Economics and Business Administration) Program: Part one of the two-part program includes 82 NHH credits completed over three years in accounting, business administration, computer sciences, economics, finance, information system management, marketing, mathematics, operations research, organization management, statistics, strategy, and supplementary courses (C languages [English, French, German, Japanese and Spanish], law, mathematics, computer science, economic history and economic geography). The school refers to completion of the first part as completion of a Bachelor of Business Administration degree program. A Norwegian degree is not awarded after the third year. Students do not conclude their education after part one, but continue through part two of the program.

  The second part requires completion of 26 NHH credits or one additional year of study that includes courses in a chosen specialization, supplementary courses, and a thesis. Students may specialize in accounting, economics, economics in developing countries, finance and financial economics, information systems, internationalization and the international economy, managerial economics, marketing management, organization management, or strategic analysis. Completion of part two results in the *siviløkonom* degree, translated by NHH as Master of Science in Business.
- Handelshøyskolen BI (Norwegian School of Management) *Siviløkonom* Program: This is a four-year, 80-*vekttall* program. The institution translates it as Master of Business and Economics since 1993, and as Master of Management through 1992. Government authorization to award the *siviløkonom* was granted to this private institution in 1985. Prior to 1985, the credential granted for this program was known as the *diplomøkonom*, a different program than the *diplomøkonom* (diploma in business administration) program offered by this institution since 1985. Those holding the *diplomøkonom* awarded from 1972 to 1985 may apply to the Handelshøyskolen BIs to have a *siviløkonom* degree issued in its place.

  The program was divided into two 2-year parts. Part I includes mandatory courses totalling 40 *vekttall*. Part II includes 20 *vekttall* of mandatory courses, 12 *vekttall* of elective courses, and an 8-*vekttall* thesis. Part II students may specialize in one of the following areas: accounting, applied organizational and operations development; finance; international business administration; management and efficiency; marketing; shipping management, social economics; and tax planning and economic

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management. The program was changed in 1993 to one 3-year and one 1-year part. In the last part students specialize in areas listed above, plus logistics, entrepreneurship, management information systems, business strategy or organization psychology.

After completing the third year, students may elect to complete the fourth year or transfer into the Master of Science program described below.

14. *Sivilmarkedsfører* (Marketing): The one-year, 20 *vekttall* program, which builds on the *diplom-markedsøkonom*, is offered by the Norges markedshøyskole which is part of the Handelshøyskolen BI. The school refers to this credential as the Master of Science in Marketing.
15. *Handelsøkonom* (Business Administration): A four-year program offered by the former Oslo handelshøyskole (Oslo Business School). The school refers to the degree as the Bachelor of Business Administration (BBA)-Honors. After completion of the third year, students may apply for admission to the Master of Business Administration program (see below).
16. *Pedagogisk Utdanning* (Teachers' Training Program): Through spring 1992, this program, offered by Norges handelshøyskole, represented one semester of study for graduates of the *siviløkonom* program. Beginning in fall 1993, students may complete the requirements for this program during the *siviløkonom* program, extending the program to a total of 4½ years.

    Completion of the teachers' training program qualifies the graduate as an *adjunkt* (adjunct) in business. Also, in cooperation with Bodø lærerhøgskole (Bodø College of Education), the Høgskolesenteret i Nordland (Nordland College) offers a teacher training program in business economics. Teacher qualifications are discussed later in this chapter.
17. *Candidatus/candidata magisterii (cand. mag.)* in an *Økonomisk-administrativ studieretning* (Economics-Administrative Area of Study) Program: The University of Bergen offers a *cand. mag.* degree program specifically in an economics-administrative study program through its Faculty of Social Sciences. It is a four-year first-level degree which includes the *ex. phil.*, one semester of study in information science, two semesters in administration and organization science, two semesters in social economics, and two semesters of elective study. The *cand. mag.* is discussed in detail in Chapter IV.
18. *Candidatus/a rerum politicarum (cand. polit.)* Program: The universities of Bergen, Oslo, and Trondheim offer the *cand. polit.* in economics through their faculties of social sciences. Because of the historical development of the study of economics in northern Norway, the University of Tromsø offers a *cand. polit.* degree program in economics through its Norges fiskerihøgskole (Norwegian College of Fishery Science). The *cand. polit.* degree is discussed in Chapter IV.
19. *Examen oeconomiae (exam. oecon.)* and *candidatus/a oeconomiae (cand. oecon.)* Programs: The Department of Economics of the Faculty of Social Sciences of the University of Oslo offers a professionally oriented degree program in economics which leads to *cand. oecon.*

    The curriculum is divided into three divisions. Division I includes the *ex. phil.*, three semesters of study in economics, plus one semester of study in mathematics, statistics, and data processing, for a total of five semesters of study. Division II includes two semesters of study in economics, specifically microeconomics, macroeconomics, and empirical methods. Students choosing to conclude their university studies after division II are eligible for the degree of *examen oeconomiae*. Division III requires four additional semesters of study and includes advanced coursework in micro- and macroeconomics, electives, and a thesis.
20. Master of International Business/MiB Program: Offered by the Norges handelshøyskole/NHH, it is taught entirely in English. It admitted its first students in 1986. The program focuses on applied international business and prepares students for international experience.

    Until 1993 the MiB program required two years of study including 30 NHH credits in compulsory subjects, 6 credits of electives, 3 credits for a summer internship or an additional elective, plus a 9-credit thesis. Beginning in 1993, the program has been restructured into a three-semester program: 27 NHH credits in compulsory subjects, 6 credits of electives, and 6 credits for the thesis.

    Admission for foreign students is based on a bachelor's degree or the equivalent. Norwegian students must have a *cand. mag.* degree,

siviløkonom, or the equivalent for admission. In addition to academic background, GMAT scores, letters of recommendation, and work experience, etc. are considered for admission.

21. Master of Science Program: Offered by the Handelshøyskolen BI, this program is taught entirely in English. It utilizes an academic calendar comprised of fall, winter, and spring quarters (September to June).

    The master's requires two years of study for those who have completed either the *diplomøkonom* (representing a total of three years of tertiary study) or three years of the *siviløkonom* program. It requires one year of study for *siviløkonom* graduates or those with approved previous education in related areas. This program was launched in 1990 with the specialization in energy management.

    Additional specializations have been added in decision support systems, environmental management, Euromanagement, financial economics, and international marketing. The program uses a 4-point, A through F grading scale. An overall grade average of 3.0 (B) is required for graduation.

22. Master of Business Administration/MBA Program: This is an 11-month program, offered by Handelshøyskolen BI, which follows an academic calendar of four quarters. The program is taught in Norwegian and English. Admission calls for GMAT scores, a four-year tertiary-level degree program, and at least three years of work experience.

    A part-time version of the MBA is offered to employees of company affiliates of the institution and may be completed in 2½ years. At the end of two years of study in the part-time MBA program, a "Special Diploma" indicating coursework completed is issued to students not planning to complete the entire program. The MBA program uses the same grading scale as the Master of Science program noted above.

23. *Doctor oeconomiae (dr. oecon.)* and ABD Program: The ABD (All But Dissertation) program is the two-year coursework component for a *doctor oeconomiae* (doctorate in economics) degree. Students may specialize in either management, business administration, economic history, economic geography, or economics.

    The normal courseload is 10 courses completed in three semesters: six in the field of specialization, and four supplementary courses. During the fourth semester, students write a research paper which serves as a dissertation proposal.

    Students "graduate" from the ABD program, but receive no title. Admission is based on the *siviløkonom* degree or the equivalent. The coursework for the ABD program is included in the *doctor oeconomiae* program. It expands the research paper begun in the ABD program to the scope of a doctoral dissertation which requires two additional years for preparation. NHH is the only institution awarding this degree.

A diagram of tertiary-level credentials in business and economics and the institutions which award these credentials is provided in Chart 5.1.

Institutions Offering Business and Economics Programs

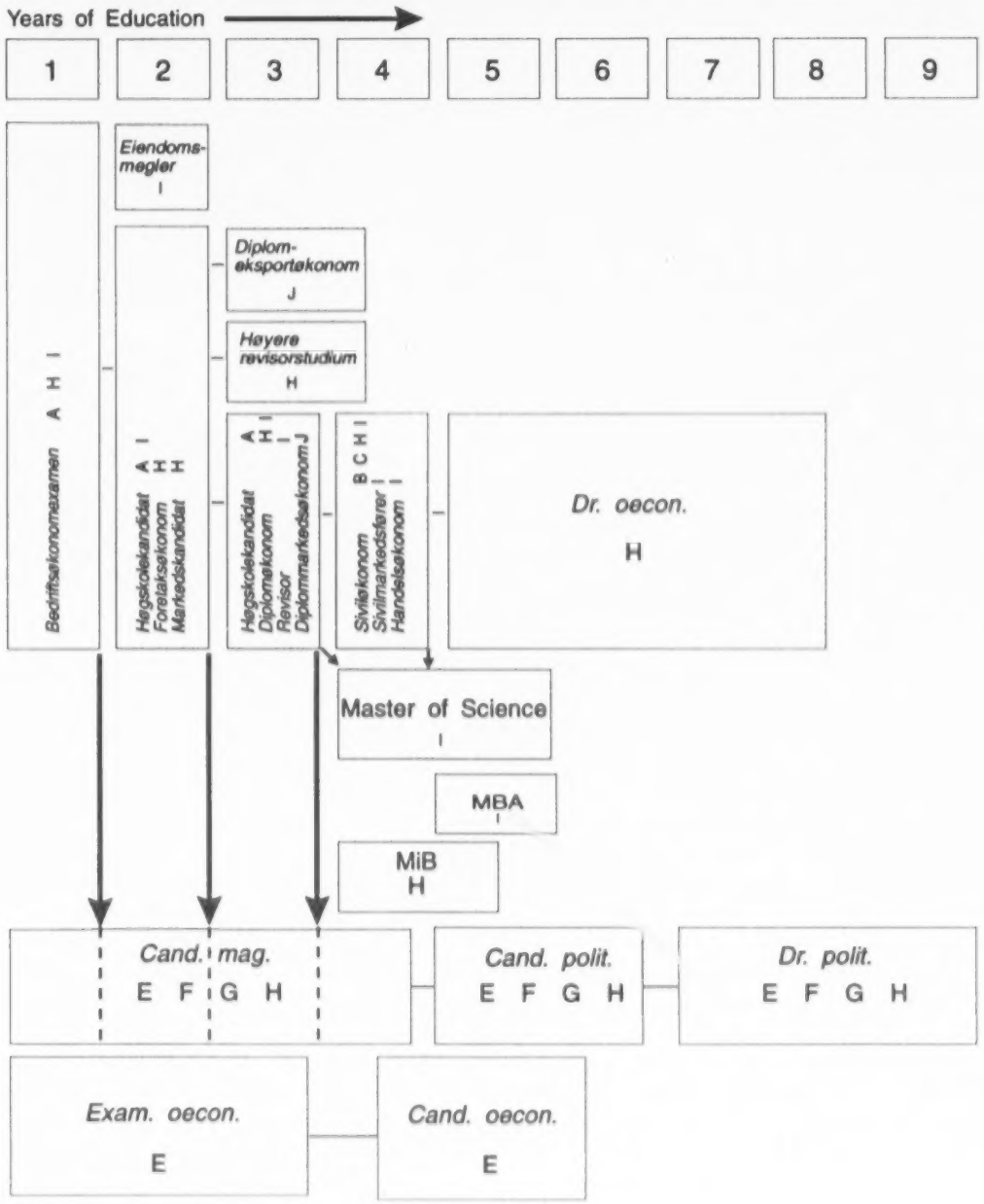
Norges Handelshøyskole/NHH (Norwegian School of Economics and Business Administration); Helleveien 30, 5035 Bergen-Sandviken; Tel: +47 55 95 92 00; Fax: +47 55 95 95 65.

This specialized university-level institution offers education primarily in business and economics. NHH offers public education through its Main School, and privately funded education through three foundations. The four (described below) are collectively known as the NHH-Group.

NHH is engaged in many international exchange agreements and has been selected as the Norwegian academic institution in the Community of European Management Schools/CEMS. In the United States, NHH has exchange agreements with the University of California, Northwestern University, Cornell University, Vanderbilt University, the University of North Carolina-Chapel Hill; College of William and Mary, Queen's University, Ottawa University in Canada, and the University of British Columbia. More than 35% of the students enrolled in the fourth year of the *siviløkonom* program spend a semester abroad.

- The Main School is comprised of 14 departments. Its use of credit and grading systems differs from other public institutions. The NHH credit system specifies 13 or 14 credits per semester as fulltime enrollment. Grading is on 9-point scale with 9 as the best possible grade.

Chart 5.1. Business and Economics Higher Education Institutions Offering Business and Economics Programs



A. *Distriktshøgskolene* (numerous)
B. Agder Distriktshøgskoler
C. Høgskolesenteret i Nordland
D. Universitetet i Bergen
E. Universitetet i Oslo
F. Universitetet i Tromsø
G. Universitetet i Trondheim
H. Norges Handelshøyskole
I. Handelshøyskolen BI
J. Norges Markedshøyskolen

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Grades of 8 and 9 are rarely awarded. Approximately 5% of the students receive an average grade of 7 through 9 and 25% the average grade of 6 or better. A good average pass is in the 4.5 to 5.0 range. The lowest passing grade is a 2 and is considered below satisfactory. The following interpretation of the NHH grading scale is suggested:

NHH Grading	Suggested US Equivalent
6–9	A
4–5	B
3	C
2	D
0, 1	F

In addition to the above programs, the school also offers one-year, 20-vekttall programs in English, French, and German. Admission to the French and German programs is based on completion of upper secondary school. Admission to the English program requires previous completion of one year of tertiary study in English. The Main School is also responsible for administering the government examination for authorized translators (*translatøreksamen*).

- The Extension Department (NHH Kursvirksomhet/NHHK) is a private foundation of the NHH Group. The Main School (NHH) decides whether or not programs offered through the NHHK receive recognition for transfer into degree programs offered by public institutions.
- In addition to various short, noncredit adult education courses offered by NHHK, two 2-year part-time noncredit programs for practicing executives are offered: Program for International Development Education/PRIDE which requires the *siviløkonom*, *candidatus/a oeconomiae*, *candidatus/a sosiologiae*, or the equivalent for admission; and the *Finansanalytiker studiet/AFA-studiet* (Program for Authorized Financial Analysts).

Executive Education Programs (Administrativt forskningsfond/AFF) are offered via modularized leadership programs funded by tuition from businesses. These noncredit programs for practicing executives usually include three weeks of intensive study for five or six periods over 12 months.

- Contract Research (Stiftelsen for samfunns- og næringslivsforskning/SNF) is a nonteaching privately funded division of the NHH-Group. Research is conducted in six SNF centers by the NHH teaching staff.

Handelshøyskolen BI (Norwegian School of Management), PO Box 580, 301 Sandvika; Tel: +47 22 57 05 00; Fax +47 22 47 05 70.

This is Norway's largest private institution offering education in business. In June 1992, the institution merged with Norges markedshøyskole (Norwegian School of Marketing). In January 1993, Oslo handelshøyskole (Oslo Business School), formerly known as Handelsakademiet i Oslo (Business Academy in Oslo), merged with these two institutions. The Norwegian School of Marketing of the Norwegian School of Management will continue to keep its name and logo, and offer separate programs. The Oslo Business School has ceased to exist, and its programs have been phased out. The Norwegian School of Management operates the following divisions.

The faculty and teaching staff located at the main campus in Sandvika comprises four departments: Business Economics; Business Organization and Management; Strategy, Business History and Foreign Languages; Marketing and Logistics. Faculty and teaching staff at all the other units are attached to these departments.

- The Graduate School in Sandvika offers the following programs: *siviløkonom* (Master of Business and Economics); Master of Science, fulltime and part-time MBA and *dr. polit.* program in cooperation with the University of Oslo, plus the three-year Registered Auditor program (undergraduate level).
- The Regional Business Colleges (BI høyskolene). These colleges are located in Bergen, Buskerud (Drammen), Gjøvik, Kristiansand, Møre (Alesund), Oslo, Ostfold (Sarpsborg), Rana, Skedsmo, Stavanger, Telemark (Prosgrunn), Trondheim, and Vestfold (Sandefjord). The programs offered include the one-year, 20-*vekttall bedriftsøkonom* (business candidate), the two-year, 40-*vekttall høyskolekandidat* (college candidate) and the three-year, 60-*vekttall diplomøkonom* (diploma in business administra-

tion), *diplomøkonom reiseliv* (diploma in tourism management), the two-year, 40-*vekttall eiendomsmegler* (Real Estate Broker), and various one-, two,-, and three-year programs described under Norges markedshøyskole. In addition, the Regional Business Colleges offer various executive programs and programs in continuing education. Since 1990 a Distance Education (*Fjernundervisning*) program has offered one- and two-year programs where students use a home-based personal computer to communicate with their teachers.

- Norges markedshøyskole (The Norwegian School of Marketing), originally a *reklameskolen* (advertising school), has also been known as the Markedsføringsskolen (Marketing School) and the Institutt for markedsføring (Institute for Marketing). The school merged with Handelshøyskolen BI (The Norwegian School of Management) in 1992. The school offers a four-year *sivilmarkedsfører* program (Master of Science in Marketing); a 3 *V* 2-year *diplommarkedsførerprogram* (Diploma in Marketing) with specialization in various fields of marketing; a two-year, 40-*vekttall høyskolekandidat* (college candidate) in various fields of marketing; and various one-year, 20-*vekttall grunnfag* and one-semester, 10-*vekttall mellomfag* supplement specializations in marketing. The one-, two-, and three-year programs are offered through BI høyskolene (Regional Business Colleges).
- The Center for Executive Education coordinates credential and noncredential educational activities for business professionals, including a Master of Management program, management programs, and especially designed course and in-company management training.
- The Research Center is primarily responsible for stimulating externally financed research projects and coordinating them with the expertise of the Norwegian School of Management faculty and staff.

This private college uses separate individual and overall grading scales for its *siviløkonom* (economist) degree program.

Individual subjects are graded as follows:

1.0 to 1.5	=	Outstanding
1.6 to 2.5	=	Very Good
2.6 to 3.2	=	Good
3.3 to 4.0	=	Fair
4.1 to 6.0	=	Fail

Overall grade averages are defined below:

1.00 to 1.75	=	Outstanding
1.76 to 2.50	=	Very Good
2.51 to 3.25	=	Good
3.26 to 4.25	=	Not Passed

On the basis of the above two Norwegian School of Management grading scales, the following US equivalent grading scale is suggested:

1.00 to 1.75	=	A (rarely given)
1.76 to 2.50	=	B
2.51 to 3.25	=	C
3.26 to 4.00	=	D
4.01 to 6.00	=	F

The Norwegian School of Management uses a US-style grading system for its Master of Science and Master of Business Administration degree programs. An overall grade of 3.0 is required for graduation:

A	=	4.0	C+	=	2.3
A-	=	3.7	C	=	2.0
B+	=	3.3	C-	=	1.7
B	=	3.0	F	=	Fail (below 1.7)
B-	=	2.7			

Oslo handelshøyskole (Oslo Business School) was founded in 1967 and merged with Handelshøyskolen BI (Norwegian School of Management) on January 1, 1993. It was a private institution with an enrollment of 1,300 students in 1992. It offered the following programs: *bedriftsøkonom*; *handelsøkonom*; Master of Business Administration; and MBA for Executives, a noncredit program. Students who were already enrolled in the Oslo Business School master's programs at the time of the 1992 merger will be allowed to complete these programs.

Other private institutions offering education in the field of business and economics which receive full or partial NKU recognition for purposes of transfer credit are listed below.

- Bankakademiet (Bank Academy)
- Institutet for høgre marknadsutbildning (IHM Business School)—marketing economics program only.
- NKI datahøgskolen (NKI Data College; see listing under engineering)
- NKI fjernundervisningen (NKI Distance Education; see Chapter VII)
- NKS (Norsk korrespondanseskole [Norwegian Correspondence School])—høgskole, Oslo (NKS College, Oslo; see Chapter VII)
- Norges høyskole for informasjonsteknologi/ NHI (Norwegian College for Information Technology)
- Rogaland markedshøyskole (Rogaland Marketing College)
- Skatteetatskolen i Oslo og Bergen (Taxation School in Oslo and Bergen)
- Varehandelens høyskole (Commodity Trading College)

Education (Teacher Training)

Teacher training is under the jurisdiction of the Ministry of Education, Research and Church Affairs and receives advice from the National Council for Teacher Education. Teachers at all levels are now trained in tertiary-level institutions: colleges of education, universities, specialized university-level institutions; the National College for Teachers of Vocational Subjects (Statens yrkespedagogiske høgskole). Table 5.1 summarizes teacher training requirements.

The University of Oslo offers a professionally oriented degree in pedagogy, the *candidatus/a paedagogiae (cand. paed.)*. The universities and specialized university-level institutions offer a special two-semester practical pedagogical seminar for holders of university degrees who have not studied education during their university program.

The admission requirement for all teacher training programs, except training for teachers of vocational subjects, is completion of upper secondary school with general university matriculation requirements. Most applicants for the programs leading to qualification as a general subjects teacher have completed upper secondary education in the *allmenne fag* (general studies area). Additional special requirements are listed under each type of teacher training.

College of Education Programs

Teacher training for primary and secondary schools is regulated by the Teacher Training Act of 1973 and its subsequent amendments. The Act took effect in 1975, and raised the former two-year training programs to tertiary-level programs of at least three years in length offered at *lærerhøgskoler* (college of education), also known as *pedagogiske høgskoler* (pedagogical colleges). Prior to this time the programs did not require completion of upper secondary school for admission.

Legislation divides teachers into the following categories: *førskolelærere* (preschool teachers), *allmennlærere* (general subjects teachers), and *faglærere* (specialized subjects teachers). It also specifies three titles for teachers at all levels: *lærer* (teacher), *adjunkt* (adjunct), and *lektor* (lecturer). See "Teaching Ranks" later.

In addition to the basic teacher training course, the colleges also offer half-year and full-year courses in special subjects and two-year courses in some fields, such as drama and music, and special education. Table 5.2 lists all colleges of education with their names, addresses, and specializations. Those that provide instruction for the advanced degree in education are noted.

Preschool Teachers

Preschool teachers (*førskolelærere*) for children from infancy to age 7 are trained in one of two colleges which offer programs specifically for preschool teaching, or in one of the 16 colleges offering preschool teacher education in addition to other programs. The three-year program comprises study in educational theory and practice for 1¼ years; subject studies with methodology and didactics for 1¼ years; and one semester of indepth study in at least one subject, such as child language and culture, music, special education, social studies and public administration, drama, and the role of play in child development. Students spend 20-24 weeks in practical training.

Upon graduation, students are issued a full teaching license by the college which entitles them to teach in any preschool. Holders of this credential may complete one year of additional study to qualify as an *allmennlærer* (general subjects teacher). They may also undertake further studies in social work or health-related fields.

Table 5.1. Summary of Teacher Training Requirements

Regulations of Teacher Training Laws of 1973 and 1987 in regard to qualifications: All programs shall include at least a half year of the study of pedagogy.

In regard to specific qualifications:

- *Førskolelærer* (Preschool teacher): Three years of teacher training at a college of education.
- *Allmennlærer* (General Subject Teacher, basic school): Four years of training at a college of education (formerly three years).
- *Faglærer* (Specialized Subject Teacher):
  - *Dans* (Dance): A three-year program at Den norske ballethøyskole (Norwegian College of Ballet) in the ballet, dance, or movement teacher program, or from Statens balletthøgskole (National College of Ballet and Dance) in the ballet teacher program.
  - *Drama* (Drama): Three-year program at the Statens teaterhøgskole (National College of Dramatic Art) in the Actor or Scene Director branch.
  - *Forming* (Arts and Crafts): Three-year program at a college of education. The 1973 law also requires specialized teacher training at a handicraft school, two years' specialized teacher training plus two years of relevant vocational practice, previous 1 1/2 years of specialized teacher training, a vocational certificate and two years of relevant vocational practice.
  - *Morsmål* (Mother tongue): One year of training at a college of education together with two years of higher education in foreign language and culture.
  - *Handels-og Kontorfag* (Business and Accounting): Three-year program at the Statens lærerhøgskole i handels-og kontorfag (National College for Teachers of Commercial Subjects) or previous training at a college of education, or two years' economics/administrative training at a college, with one year of subject and pedagogical supplementary course from a college of education.
  - *Kroppsøving* (Physical Education): Three-year program at Norges idretthøgskole (Norwegian University of Physical Education and Sport); or one-year program at Norges idrettshøgskole combined with courses in biology, chemistry, crafts, domestic science, English, history, geography, German, mass communication, media and information science, mathematics, music, Norwegian, physics, religious studies, science, or social studies taken at a university or college.
  - *Musikk* (Music): Three-year program at the Norges musikkhøgskole (Norwegian State Academy of Music) or a music conservatory; three-year program at the Statens operahøgskole (National Opera College); three-year program in children's music from Barratt Dues musikkinstitutt (Barrat Dues Conservatory of Music) or from Østlandets musikkonservatorium (East Norwegian Conservatory of Music).

General Subjects Teachers

General subjects teachers (*allmennlærere)* for basic school (*grunnskole*) education complete their training in one of 20 pedagogical colleges. Through 1992, the program required three years of study. This was lengthened to four years for students entering the program in 1992 or later.

The new program consists of a total of 80 *vekttall* in two main areas: core subjects and optional subjects (one year of study equalling 20 *vekttall*). Core subjects, with the number of *vekttall* in parentheses are mathematics (5), religion and ethics (5), natural science, environmental and social subjects (10), Norwegian (10), educational theory and practice (20), and aesthetic subjects (10). The optional subjects, consisting of 20 *vekttall*, may be in subjects or subject areas which are offered in the *grunnskole* (grades 1 to 9) and may be studied at one of the pedagogical colleges or at another type of tertiary-level institution. Practical training of 16-18 weeks is included.

Graduates receive a certificate of general teacher training (*vitnemål om allmennlærerutdanning*) and a full teaching license issued by the college, which entitles them to teach in all levels of the

nine-year basic school. A "Teacher's Certificate" will be issued in English upon request. Graduates may qualify as *førskolelærer* (preschool teachers) by completing one additional year of study.

Specialized Subjects Teachers

The highest ranking specialized subject teachers (*faglærere*), or *lektors* (instructors) are those who have completed a minimum of six years of tertiary-level education. (Complete information on teaching ranks is provided at the end of this section.) Several colleges of education provide teacher education at this level in fields which are not offered at universities. The two-year programs of study, for which a *cand. mag.* degree or the equivalent is required for admission, lead to a *hovedfag* (main subject examination) and the degree of *hovedfagskandidat* (main subject candidate). Diplomas may be issued using the terminology "*eksamen i hovedfag* (examination in a main subject)." Colleges of education offering *hovedfag* examinations are noted in Table 5.2.

Graduates of these college-based *hovedfagskandidat* programs do not in all cases qualify for admission to Norwegian doctoral programs. Some of the programs do not meet the required theoretical and academic standards set down in the regulations for university doctoral degree admission, and university doctoral programs are in some cases not within the relevant fields of study.

In some cases, the colleges of education offering *hovedfag* programs may have arangements with neighboring universities, which will issue either a *cand. philol.*, *cand. polit.*, or *cand. scient.* degree (see Chapter IV) rather than a *hovedfagskandidat*.

Specialized subjects teachers are trained in colleges, at universities or university-level specialized institutions, and at the Statens yrkespedagogiske høgskole (National College for Teachers of Vocational Subjects). In addition to the general university matriculation requirements, prospective *faglærer* students must have completed at least one year of study at the secondary level in their intended specialization. Students who wish to qualify for teaching in upper secondary school and in the college sector must have two years of study in specialized subjects in upper secondary education.

The three types of *faglærere* are: 1) those who teach arts and crafts, economics, home economics, and a combination of music and physical education in grades 1 through 9; 2) those who teach humanities, natural sciences, music, dance, and physical education in the upper secondary schools and college sector institutions; and 3) those who teach vocational subjects in grades 1 through 12.

1. Training for special subjects teachers of grades 1 through 9 is offered at the colleges of education. The structure of the three-year teachers' college programs includes one year of study in educational theory and practice and two years of subject studies with didactics and methodology.

   Upon graduation, students receive a *vitnemdl om faglærerutdanning* (certificate of specialized subjects) and a full teaching license, issued by the college. Those qualified to teach in the upper secondary schools and college levels in the areas of music, dance, and physical education must be educated in a university-level institution (see below).
2. Training for teachers of humanities and natural sciences in the upper secondary schools and college sector institutions is provided at the universities. Training for upper secondary school and college sector teachers in music, dance, and physical education is given at tertiary-level institutions specializing in such training (e.g., National Academy of Music). (See "Teacher Training Programs Offered at Other Colleges and Universities," below.)

   To qualify for this level of teaching, students normally complete a *candidatus/a magisterii* degree, followed by a program of educational theory and practice. Until the spring semester of 1992, this supplemental program required one semester of study. Students entering in the fall of 1992 and later complete a full year course. Details of training in fine arts, sports, etc. is provided below.
3. Training for teachers of vocational or technical subjects is offered at the Statens yrkespedagogiske høgskole (National College for Teachers of Vocational Subjects) following substantial practical experience in the vocational field. Those wishing to train to be teachers of vocational subjects have completed their own vocational training in upper secondary schools, at tertiary-level institutions of different types, or in an apprenticeship program.

   Vocational teachers undertake a period of teacher training at the National College for Teachers of Vocational Subjects. Until the spring semester of 1992, the program required

Table 5.2. Colleges of Education, 1993

As of 1993, most will be combined into larger units. See Appendix B. Key: Institutions have been coded to indicate the programs they offer: K = preschool teacher training; G = general studies teacher training; SS = specialized subject training (with subjects listed); H = advanced level *hovedfag* (main subject) studies. Training for teachers of music is done in the music conservatories, for drama at the Statens teaterhøgskole and for dance at the Statens balletthøgskole. See appropriate sections.

Alta lærerhøgskole (Alta College Of Education). Postboks 1200, 9501 Alta. Tel: +47 784 34 044. Fax: +47 784 37 670. Programs: **K, G, S** in nutrition, health and environment.

Barnevernsakademiet i Oslo, pedagogisk høgskole (Oslo Academy of Child Welfare, College of Education). Postboks 24, Manglerud, 0612 Oslo. Tel: +47 22 27 78 60. Fax: +47 22 26 41 79. Programs: **K, H** in children's pedagogy.

Bergen lærerhøgskole (Bergen College of Education). Landåssvingen 15, 5030 Landås. Tel: +47 55 29 16 00. Programs: **K, G, SS** in science with informatics and mathematics, **H** in music pedagogy and in social studies (in conjunction with the History Institute of the University of Bergen).

Bislet høgskolesenter (Bislet College). Pilestredet 52, 0167 Oslo. Tel: +47 22 45 40 00. Fax: +47 22 45 40 05. Established 1992, incorporating Oslo lærerhøgskole and Sagene lærerhøgskole. Program: G.

Bodø lærerhøgskole (Bodø College of Education). Rønvik, 8000 Bodø. Tel: +47 755 81 560. Fax: +47 755 83 560. **K, G, SS** in economics and administration (in conjunction with Høgskolesenteret i Nordland).

Dronning Mauds Minne, høgskole for førskolelærerutdanning (Queen Maud's Memorial Foundation College of Education for Preschool Teachers). Th. Owesensgate 18, 7044 Trondheim. Tel: +47 73 51 24 77. Fax +47 73 51 24 87. Programs: **K, H** in preschool pedagogy (in conjunction with University of Trondheim).

Eik lærerhøgskole (Eik College of Education). 3109 Lofts-Eik. Tel: +47 333 68 022. Fax: +47 333 69 330. Programs: **K, G.**

Elverum lærerhøgskole (Elverum College of Education). 2400 Elverum. Tel: +47 624 11 655. Programs: **G, SS** in physical education and sports.

Halden lærerhøgskole (Halden College of Education). 1750 Halden. Tel: +47 943 84 444. Programs: **K, G, SS** in economics and administration (in conjunction with Østfold distriktshøgskole).

Hamar lærerhøgskole (Hamar College of Education). 2300 Hamar. Tel: +47 625 22 040. Programs: **K, G.**

Høgskolen i Levanger (Levanger College). 7600 Levanger. Tel: +47 740 91 211. Fax: +47 740 81 712. Programs: **K, G, H** in physical education.

Kristiansand lærerhøgskole (Kristiansand College of Education). Kongsgård allé 20, 4631 Kristiansand. Tel: +47 380 91 980. Fax: +47 380 91 987. Programs: **K, G, SS** in science with informatics and mathematics.

Nesna lærerhøgskole (Nesna College of Education). 8700 Nesna. Tel: +47 750 56 102. Fax: +47 750 56 103. Programs: **K, G.**

Oslo lærerhøgskole (Oslo College of Education). Incorporated into Bislet College in 1992. Program: G.

Rudolf Steinerhøgskolen (Rudolf Steiner College). Sporveisgata 35, 0354 Oslo. Tel: +47 22 56 69 61. The only private college of education offering a two-year program in elementary school teacher training and a kindergarten teacher training program, both based on the Steiner education theories. The school operates on a three-term,

37-week calendar from August to June. The courses do not qualify graduates to teach in the Norwegian public schools. The institution was founded in 1981 and enrolls 65 students. Programs: **K, G.**

Sagene lærerhøgskole (Sagene College of Education). Incorporated into Bislet College in 1992. Program: **G.**

Sámi allaskuvla/samisk høgskole (Sámi College). Postboks 10, 9520 Kautokeino. Tel: +47 78 48 68 88. Fax: +47 78 48 68 78. Programs: **K, G.**

Sogndal lærerhøgskole (Sogndal College of Education). Postboks 211, 5801 Sogndal. Tel: +47 576 71 311. Programs: **K, G.**

Stabekk høgskole (Stabekk College). Ringstabekkveien 105, 1340 Bekkestua. Tel:+ 47 22 12 07 20. Programs: **SS, H** in nutrition, health and environmental studies.

Statens lærerhøgskole i forming Blaker (National College for Teachers of Arts and Crafts). 1925 Blaker. Tel: +47 63 82 83 88. Program: **SS** in drawing and handicraft.

Statens lærerhøgskole i forming Oslo (National College for Teachers of Arts and Crafts). Cort Adelersgate 33, 0254 Oslo. Tel: +47 22 55 82 00. Fax: +47 22 55 82 35. Programs: **SS** in arts and crafts for primary school, lower and upper secondary school, folk high school and art colleges. Offers specialization of one-year, 20 *vekttall* units in design and decorative textile; design and sewing of clothes; design and weaving of textiles; drawing, design and color; drawing, design, color and textile; tapestry weaving, design and color; **H** in arts and crafts and in Sámi arts and crafts.

Statens lærerhøgskole i handels- og kontorfag (National College for Teachers of Commercial Subjects). Stubbveien 3, 3500 Hønefoss. Tel: +47 321 25 100. Fax: +47 321 20 980. Programs: **SS** in economics and administrative subjects and training for *adjunkt* title; **H** in economics and administrative branches.

Statens yrkespedagogiske høgskole (National College for Teachers of Vocational Subjects). Postboks 2803, Tøyen, 0608 Oslo. Tel: +47 22 67 45 85. Fax: +47 22 67 96 22. Programs: **SS** for teachers of vocational subjects; **H** in vocational pedagogy. This is the only institution of its type in the Nordic countries.

Stavanger lærerhøgskole (Stavanger College of Education). Postboks 2521 Ullandhaug, 4004 Stavanger. Tel: +47 51 55 86 00. Programs: **K, G, H** in special education.

Stord lærerhøgskole (Stord College of Education). 5414 Rommetveit. Tel: +47 534 10 288. Fax: +47 53 410 477. Programs: **K, G, H** in pedagogic information science (in conjunction with University of Bergen).

Telemark lærerhøgskole (Telemark College of Education). 3670 Notodden. Tel: +47 350 10 200. Fax: +47 350 14 230; Programs: **K, G, SS** in arts and crafts, and in science with informatics or mathematics; **H** in arts and crafts.

Tromsø lærerhøgskole (Tromsø College of Education). Mellomveien 110, 9000 Tromsø. Tel: +47 776 57 600. Fax: +47 776 88 118. Programs: **K, G.**

Trondheim lærerhøgskole (Trondheim College of Education). Breidablikkveien 39, 7021 Trondheim. Tel: +47 73 51 12 66. Fax: +47 73 96 46 64. Programs: **G, H** in special education (in conjunction with the University of Trondheim).

Volda lærerhøgskole (Volda College of Education). 6100 Volda. Tel: +47 700 77 242. Fax: +47 700 78 835. Programs: **K, G, H** in special education.

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one semester of study. Since the fall semester of 1992, it has been extended to a full-year period. Applicants must hold a *fagbrev* (vocational certificate) in a technical profession, skilled trade or craft, and have two to four years' experience in their field.

The vocational study of this group of teachers covers most of the following occupations and

professions: technical and vocational professions and skilled trades, agricultural professions, and different professions associated with hospital treatment and health care.

Special Education Teachers

Teachers of special education *(spesiallærere)* must have training as preschool teachers, general subject teachers, or specialized subject teachers. Special education teacher training is offered at several teachers' colleges and at the Institutt for spesialpedagogikk (Institute of Special Education) of the University of Oslo. Teachers' colleges offer programs corresponding to part I, and in some cases part II offered by the Institute of Special Education (see "Teacher Training Programs Offered at Other Colleges and Universities," below).

Continuing Education: In-Service and Further Education

Primary and lower secondary school teachers have a built-in system of study and planning days one week per year, spread throughout the school year. Pupils attend classes for 37 weeks; teachers are required to attend for 38 weeks. There is no requirement for additional continuing education.

Most pedagogical colleges offer special training courses of half-year or full-year duration in various fields for individuals wishing to advance to a higher teaching rank. Certificates of study for half or full year (*vitnemål om halvårs- og årsenheter*) courses are issued.

Teachers who wish to qualify for the *adjunkt* level (see "Teaching Ranks" below) follow a one-year special course at a college of education. Upon completion they are issued a *vitnemål om adjunktutdanning* (certificate for adjunct education).

Teacher Training Programs Offered at Other Colleges and Universities

Training for specialized subject teachers (*faglærere*) in fine arts and physical education is provided at tertiary-level institutions offering education in these fields. Music pedagogical training is offered at the Norges musikkhøgskole (Norwegian State Academy of Music), in the music conservatories, and at the Statens operahøgskole (National College of Operatic Art). The program of study requires three years.

Training for teachers of sports and physical education is offered at the Norges idrettshøgskole (Norwegian University of Physical Education and Sport), the Høgskolen i Levanger (Levanger College), and the Elverum lærerhøgskole (Elverum College of Education).

The University of Oslo Faculty of Social Sciences awards the degree of *candidatus/a paedagogiae (cand. paed.)* upon completion of a professional program of study. The program, 6½ years in length since the the 1992-93 academic year and seven years previously, is structured as follows: one semester of study for the *ex. phil.*, and a one-year *grunnfag* in pedagogy and in another subject. This sequence is followed by part I in education consisting of one year of pedagogic theory, and part II in education consisting of three additional years of study in education theory, practice, and for the thesis.

Those with the degree of *candidatus/a paedagogiae* may continue university studies for a *doctor scientiarum (dr. scient.)* in the field of education.

The Practical-Pedagogical Examination

Universities and some specialized university-level institutions offer the practical-pedagogical examination (*the praktisk-pedagogisk eksamen*). This is available to students pursuing a degree program or to those holding a degree at the level of *cand. mag.* or the equivalent who wish to be general subjects teachers (*allmennlærere*) or teachers of specialized subjects with the rank of *adjunkt* (see below). The practical-pedagogical examination for those wishing to be a teacher of vocational subjects (*yrkeslærer*) is also offered at some universities or specialized university-level institutions. See information above on the training of teachers of vocational subjects for admission requirements to this type of teacher training program.

Through the spring semester of 1992, the practical-pedagogical seminar required one semester of study. Since the fall of 1992, the program requires one year. Subjects included in the teacher training program are theory of education, including pedagogical theory and subject didactics; and school practice, including teaching, guidance, planning, and cooperation.

The Norwegian Institute for Special Education

The Statens spesiallærerhøgskole (Norwegian Institute for Special Education) became part of the University of Oslo in January 1991. It changed its name to the Institutt for spesialpedagogikk (Institute of Special Education) of the University of Oslo from the middle of 1992. The Institute operates a sequential four-part program. Each part results in a *vitnemål* (certificate) from the respective part (e.g., *vitnemål fra 2. avdeling* (certificate from Part II).

Admission to Part I requires either 1) *ex. phil.* plus a minimum of one year of college or university study; 2) qualification as an *allmennlærer* (general subjects teacher), *førskolelærer* (preschool teacher), or a *faglærer* (special subjects teacher); or 3) completion of a three-year health or social work program at a college. Part I requires one year of study in special education with a broad orientation.

Part II requires one year of study in a chosen area of specialization and includes teaching practice. Subject areas available are listed below:

A-Line: *audiopedagogikk* (deaf and hard of hearing)

D-Line: *spesialpedagogikk* (special education) with emphasis on *spesifikke lærevansker og datateknologi* (specific learning programs and data technology)

E-Line: *spesialpedagogikk* (special education) with emphasis on *generelle lærevansker* (general learning problems)

F-Line: *spesialpedagogikk* (special education) with emphasis on *fysisk funksjonshemning* (physical functioning)

L-Line: *logopedi* (speech therapy)

M-Line: *spesialpedagogikk* (special education) with emphasis on *multihandikap* (multiple handicaps)

S-Line: *synspedagogikk og mobilitet* (sight education and mobility)

T-Line: *spesialpedagogikk* (special education) with emphasis on *sosiale og emosjelle vansker* (social and emotional problems)

Part III includes 1½ years of study in social science methods and special education research. The first semester consists of coursework, and the second and third semesters consist of a research project with thesis. These studies result in the University of Oslo *hovedfagseksamen i spesialpedagogikk* (main subject examination in special education). This examination is at the same level as all other university-administered *hovedfag* (main subject) examinations which require for admission a *cand. mag.* degree (see Chapter IV).

Part IV represents one year of study in counselling, communication, and educational innovation and qualifies graduates for leadership positions in the field of counselling. Completion leads to the *candidatus/a paedagogiae specialis (cand. paed. spec.)*

Teaching Ranks

The three teaching ranks established by the Ministry are unrelated to the type of school in which the teacher is employed. Teachers may move from one rank to the next by additional study or qualify directly by their preparatory academic program for a specific rank. The ranks and their titles are as follows:

- *Lærer*: The teacher must have completed three-year pedagogical training in a pedagogical college or have completed the formerly half-year, now one year, post-university degree program of pedagogical training.
- *Adjunkt*: The teacher must have completed either four years of study or have obtained the *cand. mag.* with at least two teaching subjects and supervised practice teaching. Holders of the *lærer* title may become an *adjunkt* by completing one year of approved additional study at a college or university. The colleges of education will issue a *vitnemål om adjunktutdanning* (certificate of adjunct education).
- *Lektor*: The teacher must have completed a minimum of six years of higher education and obtained an advanced degree, such as *cand. paed.* or *cand. philol.* with at least two teaching subjects and supervised practice teaching. An *adjunkt* may earn the title of *lektor* (instructor) by completing a university *hovedfag* (main subject) program of at least two years' duration or its equivalent. A *lærer* may earn the *lektor* title by completing advanced education at the *hovedfag* level.

Engineering

Three distinct programs lead to three different levels of qualifications in engineering: Programs which lead to the degree of *ingeniør* (engineer) upon completion of two- and three-year programs following

upper secondary school, 4½- and 5-year programs which lead to the degree of *sivilingeniør* (civilian engineer[1]), and doctoral programs in engineering which are open to graduates of the *sivilingeniør* programs. The degree of *ingeniør* is awarded only by an *ingeniørhøgskole* (engineering college) within the college system. Chart 5.2 is a diagram of technical and engineering education.

The Professional Degree in Engineering

Most students wishing to complete a professional degree in engineering *(sivilingeniør)* do so at the University of Trondheim's Norges tekniske høgskole/NTH (Norwegian Institute of Technology). NTH offers 4½-year, 90 *vekttall* programs in the faculties of applied earth science and metallurgy, chemistry and chemical technology, civil engineering, economics and industrial management, electrical engineering and computer science, marine technology, mechanical engineering, and physics and mathematics. See sample document 5.1.

The NTH engineering programs emphasize fundamental subjects in the first and second years, and specialized subjects in the third and fourth years. The final semester is used to work on an independent final paper. The curriculum is presently under review with the possibility of extending the program to five years. The *siv. ing.* programs offered by the University of Tromsø are structured in a similar manner. See sample document 5.2.

Academic documentation is issued in Norwegian and in English. NTH weights courses with an hourly weighting system, that is, one lecture hour per week for one semester represents a weighting of two hours, and one hour of laboratory work per week for one semester represents a weighting of one hour.

Grade reports list hourly units for required lecture subjects, but not for laboratory courses or elective courses. Ninety-six hours are considered equivalent to 20 *vekttall* as defined by the other universities. Normally, 48 hours per semester represents fulltime study.

Thesis work also represents 48 hours. All NTH graduates must have had 18 weeks of noncredit, approved practical training (*praksisforskrifter*). This requirement is not included in the academic year, and may be completed at any time. Table 5.3 provides a sample curriculum for a NTH *sivilingeniør* program in mechanical engineering.

Using data indicating the numbers of graduating students who achieved specific overall grade averages in 1990, the following US equivalent grading scale is suggested:

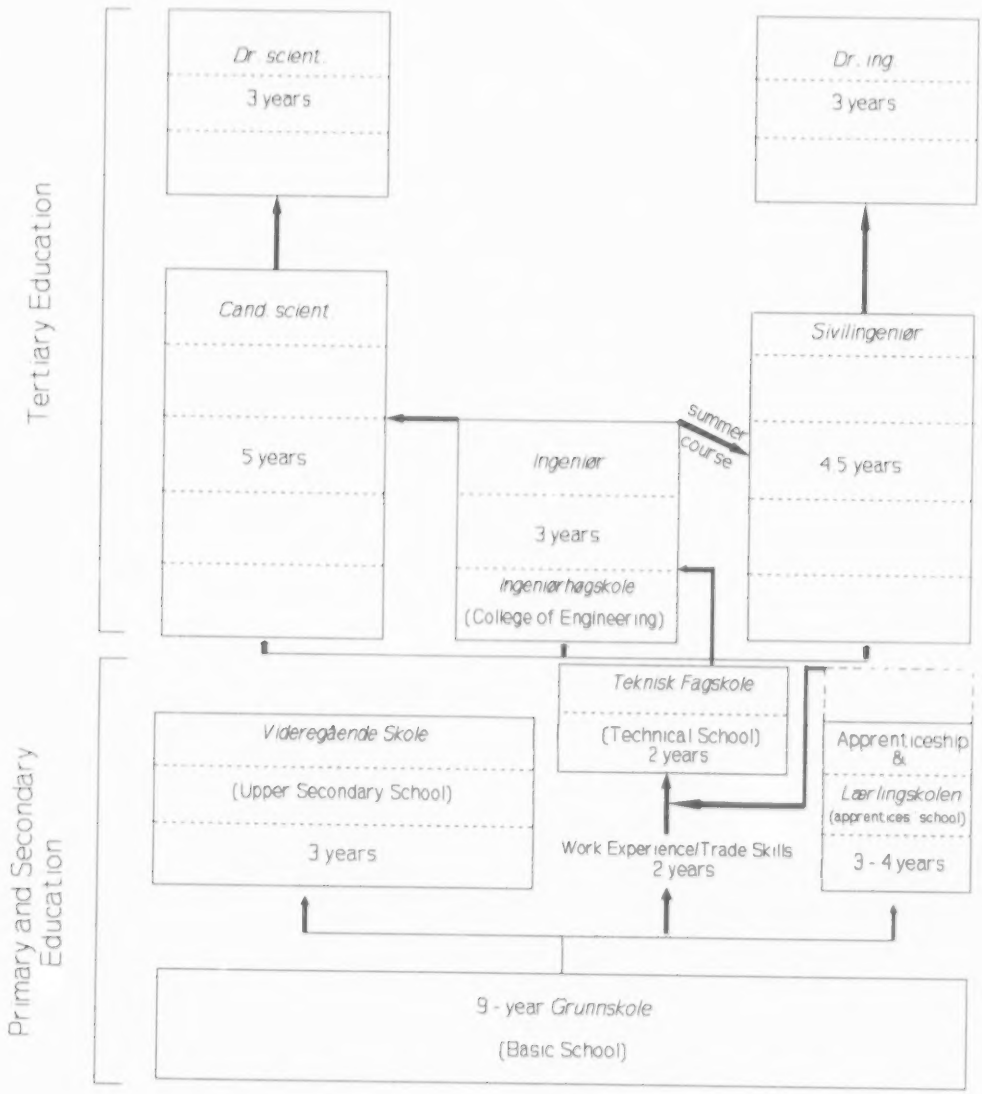
	% of Students	Suggested US Equivalent
1.0–1.9	17%	A
2.0–2.7	65%	B
2.8–3.6	18%	C
3.7–4.0	0%	D
4.1–6.0		F

The Faculties of Mathematics and Natural Sciences of the Universities of Bergen and Oslo offer professional degrees leading to the degree of *candidatus/a scientiarum (cand. scient.)* with qualification as a *sivilingeniør (siv. ing.)*. If this qualification is earned, it will be noted on the *cand. scient.* diploma. It is also possible to earn the actual degree of *siv. ing.* at either of these universities, but it is very rarely done. In the case of both the *cand. scient.* degree and the *siv. ing.*, students will earn the basic degree of *cand. mag.* degree from the Faculty of Mathematics and Natural Sciences after approximately 3½ years of study, then complete an additional 1½ years of study. For further information on the requirements for the degree of *cand. scient.*, see Chapter IV.

Three institutions in the college sector have recently been authorized to award the *siv. ing.* The Høgskolesenteret i Rogaland (Rogaland College Center) has been authorized to award *siv. ing.* degrees since 1987 (although they have actually been awarding unauthorized *siv. ing.* degrees since 1981); Narvik ingeniørhøgskole (Narvik Engineering College) since 1990; and Telemark ingeniørhøgskole (Telemark Engineering College) since 1987. These institutions offer two-year programs for students holding the three-year degree of *ingeniør*. Those

1 The term *sivilingeniør (siv. ing.)* is more correctly translated as "engineer." It does not imply "civil engineering" as this term is used to signify professional education in all fields of engineering. In this publication, *siv. ing.* is translated as "civilian engineer" in order to differentiate it from the qualification of *ingeniør*.

Chart 5.2. Technical and Engineering Education



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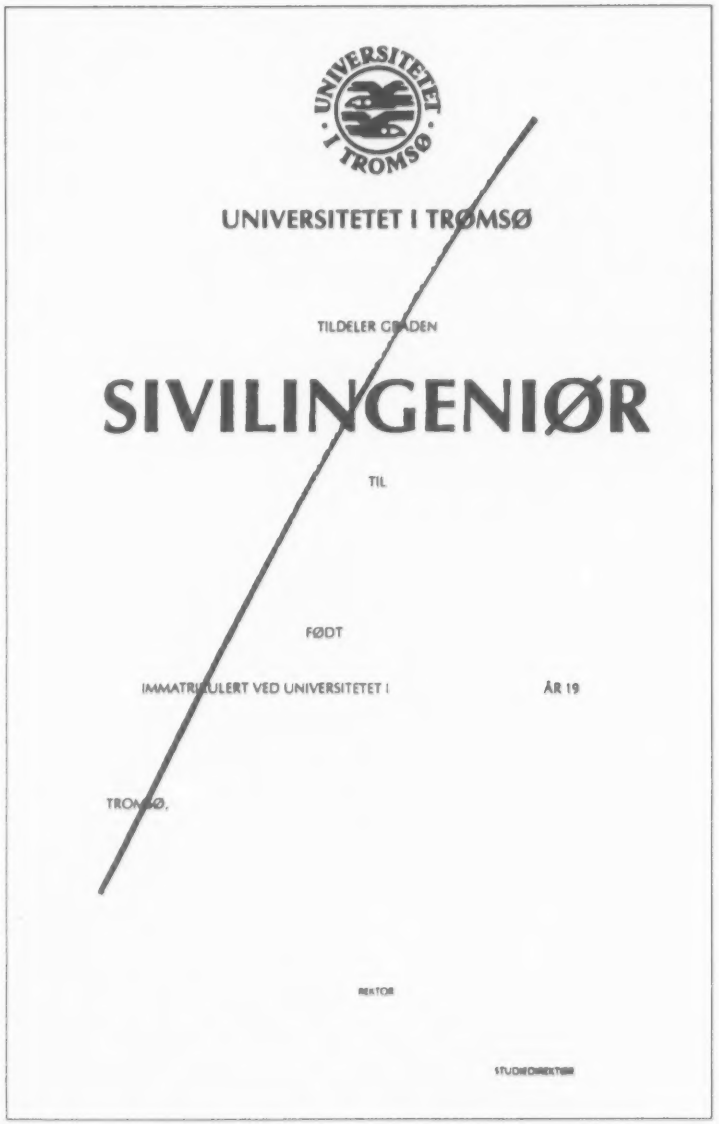
Document 5.2. *Sivilingeniør* Degree Awarded by the University of Tromsø



UNIVERSITETET I TROMSØ

TILDELER GRADEN

SIVILINGENIØR

TIL

FØDT

IMMATRIKULERT VED UNIVERSITETET I ÅR 19

TROMSØ,

REKTOR

STUDIEDIREKTØR

Document 5.1. *Sivilingeniør* Degree Awarded by the Norwegian Institute of Technology (English version)

THE UNIVERSITY OF TRONDHEIM
THE NORWEGIAN INSTITUTE OF TECHNOLOGY

CERTIFICATE OF GRADUATION

[redacted] Name

born on March 14th 1968, has been awarded the Norwegian degree of

S I V I L I N G E N I Ø R

at the Faculty of electrical engineering and computer science, Computer science section in May 1992.

The degree "Sivilingeniør" applies to graduates from all engineering faculties. The Norwegian Institute of Technology considers the degree "Sivilingeniør" equivalent to the American degree Master of Science in Engineering.

Trondheim, September 30th 1992

Director of Studies

Secretary

Enclosure: final list of marks and degree regulations.

Table 5.3. Mechanical Engineering Curriculum Offered at Norges Tekniske Høgskole, Heating and Refrigeration Option

Year 1	Chemistry	6
	Experimental Methodology	2
	Statics	8
	Mathematics I: Calculus Part A	16
	Programming	16
	Introduction to Machinery	7
	Materials & Processes, Basic Course	18
	Strength of Materials	8
	Mathematics I: Calculus Part B	16
	Subtotal	97
Year 2	Dynamics	10
	Physics	10
	Mathematics II: Advanced Calculus	10
	Introduction to Organization, Work Science, & Environmental Protection	8
	Creative Problem Solving	3
	Machine Elements	16
	Engineering Thermodynamics I	10
	Fluid Mechanics	10
	Statistics	10
	Economics, an Introduction	8
	Subtotal	95
Year 3	Basic Electrical Engineering	8
	Production Engineering	10
	Engineering Fluid Mechanics	10
	Numerical Methods	7
	Control Engineering	12
	Principles of Dimensioning	7
	Materials Technology for Heat and Refrigeration Engineering	7
	Thermal Engineering Laboratories	3
	Engineering Thermodynamics II	13
	Heat & Mass Transfer	12
	Choose one of the 7 *vekttall* courses in either Block A or B	
	Block A: Managerial Economics & Accounting; Operations Research; Technology, Risks, & Values; Physical & Chemical Factors of the Work Environment	
	Block B: History of Technology, Basic Course; Macroeconomics; Management & Organization Theory; Environmental Science & Management; Psychology	
	Subtotal	96
Year 4	7 Elective Subjects	63
	Project	33
	Subtotal	96
Year 5	Thesis	48
	Total	432

students who had earned the now defunct two-year, 40-*vekttall ing.* title at an engineering college through 1988 require an additional three to 3½ years of study for the *siv. ing.*

Doctoral Degrees in Engineering

Doctoral degrees in engineering include the *doctor ingeniør* (Doctor in Engineering) and *doctor scientiarum* (Doctor of Science), as well as the traditional research-based degrees of *doctor philosophiae* (Doctor of Philosophy) and *doctor technicae* (Doctor of Technology). Only the Norges tekniske høgskole (Norwegian Institute of Technology) awards doctoral degrees in engineering.

Admission to the *doctor ingeniør (dr. ing.)* and the *doctor scientiarum (dr. scient.)* programs requires qualification as a *sivilingeniør*. The programs require a minimum of one year of coursework plus two years of research with submission of a dissertation.

The traditional degrees of *doctor philosophiae (dr. philos.)* and *doctor technicae (dr. tech.)* do not require a previous educational qualification. The award of these degrees is based upon a dissertation completed after many years of independent research outside university enrollment.

The Degree of *Ingeniør* (Engineer)

Eighteen institutions of higher education within the college system award the degree of *ingeniør (ing.)*. In 1992 approximately 10,000 students were enrolled in *ingeniør* programs, most at the 11 *ingeniørhøgskoler* (engineering colleges). The engineering colleges were authorized to award the *cand. mag.* degree in February 1981 (see Chapter IV). See sample document 5.3. The 18 institutions awarding the degree of *ingeniør* are listed in Table 5.4.

Three ways to gain admission to an *ingeniør* program are:

1. Completion of the general college and university matriculation requirements (a three-year upper secondary school program including Norwegian, English, a second foreign language or social sciences, three years of mathematics, and two years of physics).
2. Two years of related work experience followed by completion of a two-year technical upper secondary school program at a *teknisk fagskole* (technical school).
3. Completion of a one-year, secondary-level, preparatory program for engineering education (*forkurs for ingeniørutdanning*) that includes intensive study in mathematics, physics, Norwegian, English, and social sciences. The institutions offering the *forkurs* are indicated in Table 5.4 by the designation FK. Completion of a *forkurs* does not lead to exemptions from any subjects in a tertiary-level engineering program.

Since 1988 engineering colleges have offered three-year, 60 *vekttall* programs. Students may specialize in a variety of fields within the areas of chemical, civil, computer, electronics, power, and mechanical engineering. In addition, an interdisciplinary program combining engineering and business administration is available at some institutions.

From 1983 to 1987, both two- and three-year *ingeniør* programs were offered for upper secondary school graduates. Since 1988 all *ingeniør* programs for upper secondary school graduates require three years of fulltime study. In addition to three-year programs, the following institutions offer two-year, 40 *vekttall ingeniør* programs to graduates of *tekniske fagskolen* (technical schools): Agder Engineering and Regional College (civil, mechanical), Kongsberg Engineering College (mechanical), Møre and Romsdal Engineering College (marine, mechanical), Oslo Engineering College (mechanical), Rogaland College Center (civil), Telemark Engineering College (power), Trondheim Engineering College (electronics, mechanical), and Vestfold College Center (electronics, power, and mechanical).

The Engineering Education Council, which acts as an advisory body to the Ministry of Education, Research and Church Affairs provides the institutions with a general framework for the curricula of the two- and three-year engineering programs (see Table 5.5).

Opportunities for Further Education for the *Ingeniør*

Graduates of *ingeniør* programs may further their education by completing additional study in an unrelated or supplementary subject area to earn the regional *candidatus/a magisterii* degree; or by completing additional education in their field of engineering to earn the advanced level degree of *candidatus/a scientiarum* or the professional degree of *sivilingeniør*. In addition, the European Federation of National Engineering Associations/FEANI in

TRONDHEIM INGENIØRHØGSKOLE

xxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxx

har i dem _____fullført utdanning som

INGENIØR

Trondheim _____

_____

Rektor

Document 5.3. *Ingeniør* (Engineer) Degree Awarded by Trondheim Engineering College

"Group I" of the European register has specified that those holding the degree of *ingeniør* are entitled to use the designation of European Engineering (*eur. ing.*) after a minimum of four years of approved engineering experience.

- Regional *Cand. Mag.* Degree. In 1981 the engineering colleges were authorized to award the regional *cand. mag.* degree (see Chapter IV). The three-year *ingeniør* program accounts for three of the four years of required coursework; the remaining year of study must be in one unrelated subject, such as economics and business administration, or in another engineering field. Those students who have completed a two-year engineering program are credited with two years of study toward the regional *cand. mag.* degree. The additional year or two of study may be completed in a supplementary program at an engineering college, another institution within the college system, or by completing a *grunnfag* program at a university.
- The *Cand. Scient.* Degree. Students wishing to complete the *cand. scient.* at one of the four universities in Bergen, Oslo, Tromsø, or Trondheim, or at the Agricultural University of Norway are given credit for studies completed in the *ing.* program. Three additional years of study are required to earn the degree of *cand. scient.*
- The *Siv. Ing.* Degree. Graduates of three-year *ing.* programs may continue their education in the same field by completing the degree of *siv. ing.* Two additional years of study are required by Høgskolesenteret i Rogaland (Rogaland College), Narvik ingeniørhøgskole (Narvik Engineering College), and Telemark ingeniørhøgskole (Telemark Engineering College). Two and one-half years of additional study are required by the Norges tekniske høgskole (Norwegian Institute of Technology) of the University of Trondheim, and the University of Tromsø. The Universities of Bergen and Oslo, and the College of Arts and Science of the University of Trondheim require three years of additional study for the *siv. ing.*

Other Programs for Engineers

Some *ingeniørhøgskoler* (engineering colleges) offer postsecondary-level programs in addition to *ing.* programs, many in business. Some programs are based on completion of upper secondary school; others require graduation from an *ing.* program (see Table 5.6).

The **Norsk rikskringkasting** (Norwegian Broadcasting System) conducts a two-year program lead-

Table 5.4. Institutions Awarding the Degree of *Ingeniør*, 1993

FK indicates that the institution offers a *forkurs* (preparatory program). See Appendix B for new combined institutions.

- **Agder ingeniør -og distriktshøgskole** (Adger Engineering and Regional College). Postboks 94, 4890 Grimstad. Tel: +47 37 09 21 00. (For programs other than in engineering, see the listing in the regional colleges section.)
- **Bergen ingeniørhøgskole** (Bergen College of Engineering). Lars Hillesgt. 34, 5000 Bergen. Tel: +47 55 57 35 00. **FK**
- **Gjøvik ingeniørhøgskole** (Gjøvik College of Engineering). Postboks 191, 2801 Gjøvik. Tel: +47 61 17 35 48. **FK**
- **Hærens ingeniørhøgskole** (Army College of Engineering). Hvalsmoen, 3500 Hønefoss. Tel: +47 32 12 30 22.
- **Høgskolen i Levanger** (Levanger College). Kirkegt. 1, 7600 Levanger. Tel: +47 74 01 25 00.
- **Høgskolesenteret i Rogaland** (Rogaland College Center). Postboks 2557, Ullandhaug, 4004 Stavanger. Tel: +47 51 87 41 00.
- **Horten ingeniørhøgskole** (Horten College of Engineering). Now part of Høgskolesenteret i Vestfold (Vestfold College Center). Postboks 500, 3191 Horten. Tel: +47 33 08 26 00.
- **Kongsberg ingeniørhøgskole** (Kongsberg College of Engineering). Postboks 235, 3601 Kongsberg. Tel: +47 32 86 95 00.
- **Møre og Romsdal ingeniørhøgskole** (Møre and Romsdal College of Engineering). Fogdegården, 6000 Ålesund. Tel: +47 70 13 74 30. **FK**
- **Narvik ingeniørhøgskole** (Narvik College of Engineering). Noks 385, 8501 Narvik. Tel: +47 76 94 41 30. **FK**
- **NKI ingeniørhøgskolen** (NKI College of Engineering). Hans Burums vei 30, 1340 Bekkestua. Tel: +47 67 58 88 00. Fax: +47 67 53 05 00. **FK**
- **Oslo ingeniørhøgskole** (Oslo College of Engineering). Cort Adelersgt. 30, 0254 Oslo. Tel: +47 22 55 30 00. Fax: +47 22 56 11 22. **FK**
- **Østfold ingeniørhøgskole** (Østfold College of Engineering). Postboks 10, Valaskjold, 1701, Sarpsborg. Tel: +47 69 14 20 11. **FK**
- **Sogn og Fjordane ingeniørhøgskole** (Sogn and Fjordane College of Engineering). Postboks 523, 6801 Førde. Tel: +47 35 55 50 80.
- **Statens sikkerhetshøgskole** (National College of Safety Engineering). Skåregt. 103, 5500 Haugesund. Tel: +47 52 72 12 00. **FK**
- **Telemark ingeniørhøgskole** (Telemark College of Engineering). Kjølnes, 3900 Porsgrunn. Tel: +47 35 57 50 00.
- **Tromsø maritime høgskole** (Tromsø Maritime College). Postboks 79, 9001 Tromsø. Tel: +47 776 80 250. **FK**
- **Trondheim ingeniørhøgskole** (Trondheim College of Engineering). Gunnerusgt. 1, 7005 Trondheim. Tel: +47 73 89 62 00. Fax: +47 73 89 62 25. **FK**

ing to the title of *programingeniør* (program engineer). The program is transferrable to a *cand. mag.* degree program.

The **NKI ingeniørhøgskolen** (NKI College of Engineering) is the only private institution offering programs leading to the degree of *ingeniør*. NKI was founded in Sweden in 1910 as the Noréns korrespondens institut (NKI) with a branch office established in Norway in 1959 (the Swedish establishment is no longer in existence). NKI's first engineering courses were offered in 1964. NKI presently has 19 study locations which offer students correspondence instruction: Bergen, Bærum, Bodø, Drammen, Gol, Gravdal, Hamar, Harstad, Haugesund, Krisiansand S, Kristiansund N, Lakselv, Mo i Rana, Molde, Sortland, Stavanger, Tønsberg, Tromsø, and Trondheim. It operates three study centers in Trondheim, Bergen, and Bærum. Courses are offered on-site at the study centers.

Programs: Distance and correspondence programs are available for the *forkurs* (preparatory course) designed to prepare students for admission to and for the first year of the *ing.* program. The second and

Table 5.5. General Framework of Engineering Programs Leading to the Degree of *Ingeniør*

Three-Year Engineering Program Subjects	*# Vekttall*
Mathematics and Basic Sciences	
Mathematics I[1]	4
Mathematics II[2]	2
Statistics	2
Physics, Chemistry, and Environmental Science	4
Computer Programming	2
Social Sciences	6-8
Departmental Core Subjects	
Fundamental Courses in Engineering	16
Departmental Special Subjects	
Engineering Courses and Design	10-14
Major Project	4-6
Electives	4-8
Total (minimum) *vekttall*	60

Two-Year Engineering Program Subjects	*# Vekttall*
Mathematics and Basic Sciences	
Mathematics I[1]	4
Mathematics II[2]	2
Statistics	2
Physics, Chemistry, and Environmental Science	4
Computer Programming	2
Social Sciences	4-6
Engineering Subjects	16-18
Major Project	4-6
Total (minimum) *vekttall*	40

Source: *Studieplan 92/93*. Trondheim ingeniørhøgskole.

[1] Functions and a variable; differential and integral calculus with applications; parameters and polar coordinates; series; complex numbers; functions and multiple variables; differentiation; numerical methods.

[2] Matrices, determinants, series; linear equations; valuation and vector properties; systems and linear differential equations; introduction to linear transformations; fourier series; partial differential equations; numerical solutions and differential equations.

third years of the *ing.* program are taken at one of the three study centers in Trondheim, Bergen, or Bærum. The three-year *ingeniør* programs are in electronics, computer technology, electric power technology, control technology, technical cybernetics, machine technology, automotive technology, energy and air conditioning technology, construction technology, plant technology, aquaculture technology, environment and planning technology and combined technology/business management studies. Graduates of the NKI *ingeniør* program have the same status and are accorded the same opportu-

Table 5.6. Other Programs Offered by Engineering Colleges, 1993

Ingeniørhøgskole	Program	Admission Req.	Years	Yields *Cand.Mag.*
Agder ingeniør- og distriktshøgskole*	*datateknikk* (computer science)	degree of *ingeniør*	1	Yes
	teknisk eksport (technical export)	degree of *ingeniør*	1	Yes
	økonomi (economics)	degree of *ingeniør*	1	Yes
Bergen ingeniørhøgskole	*bedriftsøkonomi* (business economics)	upper secondary school	1	No
	transport-økonomi I	*bedriftsøkonomi*	1	No
	transport-økonomi II	*transport-økonomi* I	1	No
	rørkonstruksjon og prosessteknikk (tool construction & process engineering)	degree of *ingeniør*	1	Yes
	bioingeniør (bioengineer)	upper secondary school	3	No
Gjøvik ingeniørhøgskole	*landmåling* (surveying)	upper secondary school	½	No
	Geografiske informasjons-systemer (surveying information system)	degree of *ingeniør*	1	Yes
	skogbruksfag (forestry)	upper secondary school	3	No
	medieteknikk (programingeniør) [media technology (program engineer)]	upper secondary school	2	No
Kongsberg ingeniørhøgskole	*bedriftsøkonomi* (business economics)	upper secondary school	1	No
	økonomisk/administrativ (economics/administrative)	upper secondary school	2	No
		bedriftsøkonomi	1	No
Møre og Romsdal ingeniørhøgskole	*ENØK* (energy management)	degree of *ingeniør*	1	Yes
Narvik ingeniørhøgskole	*datateknikk* (computer science)	degree of *ingeniør*	1	Yes
	produksjonsteknikk (production technology)	degree of *ingeniør*	1	Yes
	økonomi og ledelse (economics & management)	degree of *ingeniør*	1	Yes
NKI ingeniørhøgskole	*bedriftsøkonomi* (business economics)	upper secondary school	1	No
Oslo ingeniørhøgskole	*internasjonal handel og markedsføring* (international business & marketing)	degree of *ingeniør*	1	Yes
Østfold ingeniørhøgskole	*bioingeniør* (bioengineering)	upper secondary school	1	No
	produktutvikling (product development)	degree of *ingeniør*	1	Yes
	prosessautomatisering (process automation)	degree of *ingeniør*	1	Yes
Statens sikkerhetshøgskole	*redningstjeneste-utdanning* (rescue service education)	upper secondary school	1	No
	brann- og skadevern (fire & damage protection	degree of *ingeniør*	1	Yes
Telemark ingeniørhøgskole	*miljøteknologi* (environmental technology)	degree of *ingeniør*	1	Yes
	prosessautomatisering (process automation)	degree of *ingeniør*	1	Yes
	prosessteknikk (process engineering)	degree of *ingeniør*	1	Yes
Tromsø maritime høgskole	*datafag* (computer science)	upper secondary school	1	No
	bedriftsøkonomi (business economics)	upper secondary school	1	No
	skipmaskineri (ship machinery)	upper secondary school	1	No
	nautikk (navigation)	upper secondary school	1	No
Trondheim ingeniørhøgskole	EDB (electronic data processing)	degree of *ingeniør*	1	Yes
	material-, sveise- og korrosjonsengineering (material, welding & corrosion engineering)	degree of *ingeniør*	1	Yes
	bioingeniør (bioengineering)	upper secondary school	1	No

nities for further education as graduates of any of the other institutions offering *ing.* programs.

NKI also operates the Datahøgskolen (Data College). The two credentials it awards receive full recognition by the Norwegian universities and colleges for purposes of further study. They are the *datahøgskolekandidat* (data college candidate); a two-year, 40-*vekttall* program in administrative data processing; and the *diplomkandidat* (diploma candidate) which represents one additional year of study (20 *vekttall)* in administrative data processing.

NKI also offers courses via correspondence and television through its Senter for fjernundervisning (Center for Distance Education). These programs are discussed in Chapter VI.

Maritime Education

Two colleges are included in the category of institutions of maritime education: Møre and Romsdal College of Fishery Technology and Tromsø Maritime College. These institutions are part of the college system and were authorized to award the regional *cand. mag.* degree in June 1991.

In addition, maritime education is conducted at the Tønsberg maritime (Tønsberg Maritime College), a part of Høgskolesenteret i Vestfold (Vestfold College Center). The former Haugesund maritime høgskole (Haugesund Maritime College) has been amalgamated into a new institution: the Statens sikkerhetshøgskole (National College of Safety Engineering).

The University of Tromsø awards the *fiskerikandidat* (fisheries candidate), a unique five-year professionally oriented degree in fishery sciences. The program for this degree is described in the University of Tromsø institutional profile.

Møre og Romsdal fiskeriteknisk høgskole (Møre and Romsdal College of Fishery Technology); Sjømannsvn. 27, 6008 Ålesund. Tel: +47 701 25 228; Fax: +47 701 22 248.

Founded in 1907 as the Navigasjonsskole for fiskere (Navigation School for Fishermen), this institution was reorganized several times through 1983, at which time it earned college status under the name Ålesund maritime skole (Ålesund Maritime School). Its present name was adopted in 1988.

Programs: Biotechnology, export marketing, fish farming, and food technology (three years); marine engines, nautical studies (two years); administration and management, biology (one year); preparatory course (one semester).

Tromsø maritime høgskole (Tromsø Maritime College); Sommerfeldsgt. 74/76, 9000 Tromsø. Tel: +47 83 80 250; Fax: +47 83 806 31. This institution is Norway's only remaining maritime college.

Programs: A *videregående skole* (upper secondary school), connected to Tromsø Maritime College, offers secondary-level education in *sjøfartsfag* (maritime subjects). Advanced course II in the upper secondary program (year 12 of formal education) provides a one-year preparatory (*forkurs*) course for students wishing to enter engineering or maritime studies in the maritime college. The *forkurs* subjects include Norwegian, English, mathematics, physics, and chemistry. An advanced course III (year 13) is also offered in the upper secondary program. It is an academic program designed mainly for experienced sea captains.

Tertiary-level programs: a two-year nautical studies program with a one-year supplementary program in ship administration; and a two-year ship machinery program with a one-year supplementary program in ship machinery. For new students beginning in 1993, the two-year plus one-year sequence will be combined into unified three-year programs which lead to the *ingeniør*. Additional programs are business economics (one year); transportation (two years); automation engineering, and fish farming technology (three years each and both leading to the *ingeniør*). Through 1992 a one-year program in electronic data processing was offered. Beginning in 1993, this program will be extended to three years and result in the *ingeniør*.

Safety Engineering

Statens sikkerhetshøgskole (National College of Safety Engineering); Skåregaten 103-107, 5500 Haugesund. Tel: +47 52 72 12 00; Fax: +47 52 71 59 06. The only college of its kind in Norway, this institution is part of the college system. In March 1991 it was authorized to award the regional *cand. mag.* degree.

Programs: The institution offers three-year programs in environmental engineering leading to the *ingeniør* or *maritime ingeniør* (maritime engineer) with specialization in either *brann- og sikkerhets- teknikk* (fire and safety engineering) or *prosessteknologi* (process technology).

Additional programs offered at this institution are a two-year program in business and economics leading to the *høgskolekandidat* (college candidate); one-year supplementary (*påbygging*) programs in fire technology and safety technology; and several one-year foundation programs (*grunnfag*) in cooperation with the University of Bergen.

Fine Arts Education

ART AND DESIGN

Tertiary-level study in art may be undertaken at one of two colleges for art and design (Statens håndverks- og kunstindustriskole and the Statens høgskole for kunsthåndverk og design) located in Oslo and Bergen, respectively, or at one of three academies of fine arts (*kunstakademi*) located in Oslo, Bergen, and Trondheim. The colleges for art and design award the credential of *høgskolekandidat* (college candidate) upon completion of a three-year program. Since June 1989, they have been authorized to award the regional *cand. mag.* degree. The academies of fine arts offer four-year and five-year programs that do not result in formal credentials.

Numerous private art schools in Norway offer programs not governmentally recognized. In Oslo, for example, Esmod moteskolen (Esmod Fashion School) offers a two-year program in fashion; Westerdals reklameskole (Westerdals Advertising School) offers a two-year program in advertising; and the Skolen for grafisk design (School for Graphic Design) offers a two-year (formerly one year) program. Additionally, private drawing schools throughout Norway offer noncredit half-year to two-year programs to prospective applicants to the colleges of art and design and the art academies.

Colleges of Art and Design

Statens håndverks- og kunstindustriskole (National College of Art and Design); Ullevålsveien 5, 0165 Oslo; Tel: +47 22 20 12 35; Fax: +47 22 11 14 96. Founded in 1818, this is the second oldest institution in Norway.

Academic staff (1992-93): 10

Enrollment (1992-93): 356

Special admission requirements: All applicants must submit a portfolio; top applicants are invited for a three-day interview. Admission to the *designkandidat* and *kunstfagkandidat* programs requires a minimum grade average of 2.7 in the *høgskolekandidat* program.

Departments: Ceramics, Drawing, Form, Etching and Lithography, Graphic Design and Illustration, Industrial Design, Fashion Design, Metal, Furniture and Interior Design, Painting, Textiles, Theory and History.

Degrees awarded: In addition to awarding the *høgskolekandidat* and the *cand. mag.* degrees, this institution also awards a *diplom* (diploma) upon completion of a 4½-year program in the Department of Industrial Design; and a *designkandidat* (design candidate) and *kunstfagkandidat* (art candidate) upon completion of a 1½-year program following the *høgskolekandidat*.

Statens høgskole for kunsthåndverk og design (College of Art, Crafts and Design); Strømgate 1, 5015 Bergen. Tel: +47 55 31 22 14; Fax: +47 55 32 67 56.

Departments: Ceramics, Graphic Design, Interior Design, Photography, Textiles.

Credentials awarded: *Høgskolekandidat, cand. mag., designkandidat,* and *kunstfagkandidat*. The latter two credentials are described under the entry for Statens håndverks- og kunstindustriskole, above.

Academies of Fine Arts

Statens kunstakademi (National Academy of Fine Arts); St. Olavsgate 32, 0166 Oslo; Tel: +47 22 20 01 50. Established 1909.

Departments: Painting, Printmaking and Sculpture.

Academic staff (1992): 10.5 plus numerous short-term guest instructors

Enrollment (1990): 105 (55 painting, 20 printing, 20 sculpture, 10 advanced study)

Admission requirements: No formal academic admission requirements, although most have completed upper secondary school. Portfolio submission is required; approximately 15% are invited for an interview and practical examination. Twenty-five new students are admitted each year.

Grades, credentials awarded: No course grades, diplomas, or certificates are awarded for the four-year programs. Instead, students are issued a letter stating the period of attendance and area of study. A fifth year of further study is available to selected students who have completed four years of study at one of the three art academies.

Kunstakademiet i Trondheim (Trondheim Academy of Fine Arts); Innherredsveien 18, 7014 Trondheim; Tel: +47 73 50 91 00; Fax: +47 73 52 65 44. Founded 1946.

Enrollment (1991-92): 65 FT

Departments: Intermedia, painting (2 departments), printmaking (3), Sculpture (4).

Credentials awarded: See Statens kunstakademi, above.

Vestlandets kunstakademi (National Academy of Fine Arts); C. Sundtsgate 53, 5004 Bergen; Tel: +47 55 90 25 60; Fax: +47 55 90 25 70.

Enrollment (1991-92): Approximately 65 FT

Credentials awarded: See Statens kunstakademi, above.

BALLET AND DANCE

Training for ballet and dance is offered both in the upper secondary crafts and esthetics line and at two college sector institutions for professional training: the Statens balletthøgskole (National College of Ballet and Dance) and Den norske balletthøyskole (Norweigan College of Ballet). The Nordnorsk balletthøgskole (North Norway College of Ballet) was consolidated with Bodø lærerhøgskole (Bodø College of Education) in approximately 1990.

Statens balletthøgskole (National College of Ballet and Dance); Tjuvholmen, 0250 Oslo. Tel: +47 22 83 25 81; Fax: +47 22 83 70 19. Founded in 1979, this public institution provides professional work-oriented education for dancers, teachers and choreographers.

Enrollment (1991): 41. Up to 15 students are accepted annually

Admissions requirements and grading: Applicants to the dance teachers and choreographers course must have completed the general college and university matriculation requirements and pass an entrance examination. Aptitude in the particular area is required. Admission to the dancers course requires completion of *grunnskole* (grade 9).

Grading: *bestått/ikke bestått* (pass/fail) basis

Programs: Three courses of study lead to a *vitnemål for* (name of candidate) *etter... fullført studium* (certificate for completion of the full program) in either the *danselinjen* (dance line), *pedagoglinjen* (dance teachers' line), or *koreografiinjen* (choreographers' line). All classes are obligatory and must be passed before the diploma is awarded. No part-time students are accepted. Each curriculum is designed to give the students the widest possible platform for their future career and include both practical and theoretical subjects. Performances are included throughout the studies.

- **Dance Line:** Concentrations in classical ballet, modern ballet and jazz dance are offered. After the first year, students choose which of these three will be the main, the second, and the third subjects. Each year includes 1300 to 1400 class hours.
- **Dance Teachers' Line:** The program aims to give students the theoretical and practical knowledge necessary to teach the main dancing techniques at all levels, together with a subject-package in dance and movement devised for teaching in schools. This subject-package consists of playdance for children aged 4-7 years, children's dance for those aged 7-12 years, con-

temporary partner work, international folk dance, and jazz dance. Subjects in teaching and methods are an integral part of the course. Practice teaching is carried out in preschools, primary schools and in the college's own classes.

The course qualifies students to teach in schools as a *faglærer* (specialized subject teacher). Completion of the program satisfies the *mellomfag* (intermediate subject) requirement should graduates wish to pursue a *cand. mag.* degree. After the first year, students choose a main subject and two secondary subjects from the three main dance categories: classical ballet, modern ballet and jazz dance. Each year of study includes 1350 to 1450 hours.

- **Choreographers' Line:** Students are admitted to the choreography program once every three years. The program trains choreographers for a variety of work forms. Practical experience is an integral part of the program. After the first year students choose which of the three dance concentrations will be their main subject. In the third year, further courses in dance are not required. Each year of study includes 1350 to 1400 hours.

Den Norske balletthøyskole (Norwegian College of Ballet); Sørbyhaugen 33, 0377 Oslo. Tel: +47 22 14 09 28. This private institution was founded in 1966 and offers professional study in ballet, dance, and movement for teachers and dancers.

Enrollment (1991): 27

Admission requirements: Completion of upper secondary school, plus a good knowledge of dance or other physical background such as sports, gymnastics, or ballroom dance.

Credentials awarded: *Dansediplom* (Dance diploma) and qualification as a *faglærer* (specialized subject teacher). The program requires three years of study and is open to fulltime students only.

MUSIC

In addition to the music degree programs at the University of Oslo and the University of Trondheim, professional degrees in music are offered by the Norges musikkhøgskole (Norwegian State Academy of Music) and the Statens operahøgskole (National College for Operatic Art). Music studies are also offered at a number of music conservatories throughout Norway.

Norges musikkhøgskole (Norwegian State Academy of Music); Postboks 5190 Majorstua 0302, Oslo. Tel: +47 22 46 40 55; Fax: +47 22 46 70 74. The Academy is one of the specialized university-level institutions. It was established in 1973 from the private Music Conservatory of Oslo in existence for over a hundred years.

Enrollment (1992): 300 students, plus a limited number of part-time special students (known as *hospitanter*)

Admission requirements: Either completion of upper secondary school general studies area or music branch of crafts and esthetics studies; or satisfactory performance on an entrance examination testing theory of music and aural ability and a practical/oral examination on an instrument, plus specific tests for each individual major, e.g., voice, violin, cello.

Departments: Wind, brass and percussion instruments; strings; piano, harpsichord, guitar, accordion and recorder; voice; composition; church music; and music education. Students enroll in academic programs in one of two areas: church music, composition and music pedagogy; or vocal or instrument studies.

Credentials awarded:

- *kandidatseksamen*—a four-year degree, divided into two sections, intended primarily for those preparing for vocal or instrument performance careers;
- *candidatus/a magisterii (cand. mag.)*—a four-year degree, divided into two sections, intended primarily for those teaching music theory, teaching music in upper secondary school (general music or instrumental or vocal instruction), or leading ensembles and amateur groups.
- *diplomeksamen*—a two-year program beyond the *kandidatseksamen* in either musical composition, performance, choral or orchestral conducting;
- *candidatus/a musicae (cand. musicae)*—a two-year program beyond the *cand. mag.* in ensemble

performance, accompaniment and chamber music, music education, liturgy/hymnology, or organology; and

- *praktisk-pedagogisk eksamen* (practical teaching examination)—a one-year fulltime program in practical pedagogy. Students who have completed the *cand. mag.* in music education are not required to take this program to qualify as a music teacher.

Students enrolled in university programs may pursue a *hovedfag* (main subject) at the Norges musikkhøgskole as part of their university degree program.

The Norges musikkhøgskole issues transcripts in English on request. The English versions give the following US equivalences:

Kandidateksamen	(US) Bachelor of Music
Cand. mag.	(US) Bachelor of Arts in Music/Music Education
Diplomeksamen	(US) Master in Music
Cand. musicae	(US) Master of Arts

Statens operahøgskole (National College of Operatic Art); Tjuvholmen, bygning B, 0250 Oslo. Tel: +47 22 83 23 77; Fax: +47 22 83 70 19. The Statens operahøgskole trains singers in opera or other forms of music theater.

Admission requirements: In addition to the standard matriculation requirements, applicants take a four-day admission examination consisting of operatic singing, piano proficiency, listening, improvisation, history of music and repertoire knowledge. A personal interview is also required. Generally 10 students are admitted every three years.

Program: The three-year program results in a *vitnemål* (certificate). Courses are obligatory: the first year emphasizes theoretical subjects (history of music theater, dramaturgy and analysis, Italian, and theory of music); second- and third-year courses are more practically oriented and culminate in a musical and dramatic production.

Musikkonservatoriene (Music Conservatories)

Six public music conservatories, listed below, offer two-year and three-year programs in a variety of music fields, e.g., church music, instrument or vocal training, music history, and music pedagogy. These institutions are part of the college system, and as of June 1991 were authorized to award the regional *cand. mag.* degree.

Agder musikkonservatorium (Agder Music Conservatory); Ø. Strandgate 17A, 4610 Kristiansand. Tel: +47 380 24 330.

Bergen musikkonservatorium (Bergen Music Conservatory); Lars Hillesgate 3, 5015 Bergen. Tel: +47 55 32 49 50. In addition to two- and three-year programs, a one-year program leading to the *skolemusikklærereksamen* (school music teacher examination) is offered.

Nordnorsk musikkonservatorium (North Norwegian Conservatory of Music); Krognesveien 33, 9000 Tromsø. Tel: +47 776 56 622.

Østlandets musikkonservatorium (East Norwegian Conservatory of Music). Two branches: 1) Vetlandsveien 45, 0685 Oslo; Tel: +47 22 26 67 40; and 2) Avd. Buskerud, Postboks 1942 BSS, 3002 Drammen. Tel: +47 33 83 11 35.

Rogaland musikkonservatorium (Rogaland Conservatory of Music); Bjergsted, 4007 Stavanger.

Trøndelag musikkonservatorium (Trøndelag Conservatory of Music); Postboks 654, 7001 Trondheim. Tel: +47 73 96 60 66; Fax: +47 73 51 55 38. Three-year programs in organ and church music, and in music pedagogy training are offered.

Private Institutions Offering Music Education

A number of private institutions offer educational programs of various lengths in music fields. The institutions listed below offer programs that have been evaluated by the NKU (Nasjonalt Koordinerende Utvalg [National Coordinating Commission]). For purposes of transfer into university *cand. mag.* degree programs, completion of their programs result in two to three semesters of transfer credit.

Barrat Dues musikkinstitutt (Barrat Dues Conservatory of Music); Lyder Sagensgate 2, 0358 Oslo. Tel: +47 22 46 58 78. A special three-year course of training for music kindergarten teachers qualifies graduates for work in kindergartens and primary grades 1 to 6.

Indremisjonsselskapets bibelskole i Oslo (Norwegian Lutheran Inner Mission Society's School); Box 6830 St. Olavs plass, 0130 Oslo. Offers programs in music teacher training, with specialization in church music.

Kristiansand kommunale musikkskole (Kristiansand County Music School); Kristiansand. Courses for *skolemusikklærereksamen* (school music teacher examination) and *musikkpedagogisk eksamen* (music pedagogy examination) are offered.

Musikkonservatoriet i Oslo (Oslo Music Conservatory). Offers a four-year course in orchestra conducting.

Musikkonservatoriet i Tromsø A/S (Music Conservatory of Tromsø, Ltd.)

Eurytmiskolen i Moss (Eurythmics School in Moss); Østsynet 11, 1500 Moss. Tel: +47 69 27 05 54. The Eurytmiskolen i Moss is a private institution whose programs are presently being reviewed by the National Coordinating Commission (see Chapter IV). It offers a four-year postsecondary-level program in dancing, drama, and music.

THEATER

Statens teaterhøgskole (National College of Dramatic Art); Postboks 1509, Vika 0117 Oslo. Tel: +47 22 83 00 10; Fax: +47 22 83 83 58. Training in theater and drama is offered at the upper secondary level in the crafts and aesthetics branch. On a more advanced level, it is offered at the Statens teaterhøgskole. The National College is the only public professional theater training institution in Norway.

Programs: Two programs are offered: acting and directing. Both require three years of study and lead to a certificate for completion of the Statens teaterhøgskole *skuespillerlinjen* (National College of Dramatic Art acting line) or a Statens teaterhøgskole *instruktørlinjen* (National College of Dramatic Art directing line). A third program, theater directing, is in the planning stage.

Eight to ten students are admitted annually to the acting program, and two to three to the directing program. Applicants to the acting program must complete an entrance examination, be 17 years of age, and have completed the nine-year *grunnskole* (basic school). Completion of upper secondary school is not required, but is considered an advantage. Applicants to the directing program must be 20 years of age and have completed the normal college and university matriculation requirements.

Both programs include 50 obligatory 45-minute class periods a week for 38 weeks. In addition, students are expected to attend performances and seminars on weekends and see all student performances. There is no final examination, but rather continuous evaluation. At the end of each semester, a student is given an overall evaluation. Credit toward a *cand. mag.* degree is not given at present.

Health Professions

ALLIED HEALTH SCIENCES

A variety of health-related subjects may be studied at the upper secondary level in social studies and health subjects (*sosial- og helsefag*). See page 20.

Education in the allied health sciences is offered by a number of tertiary-level institutions collectively referred to as *statlige helsefaghøgskoler* (national health colleges), and by a few other institutions.

Admission is based on the standard college and university matriculation requirements. Since June 1991, the national health colleges have been authorized to award the regional *candidatus/a magisterii* degree. The programs are summarized below; the profiles of the institutions which offer each program follow.

Table 5.7 lists institutions offering allied health sciences programs. The educational programs in audiography, bioengineering, occupational therapy, physical and Mensendieck therapy, prosthetics and orthotics, and radiography satisfy the academic portion of the professional licensure requirements in the respective fields. The academic portions are followed by periods of practical training which, together with the academic studies, lead to licensure in the various fields.

Audiography

Audiografutdanning (audiography education) is offered in a two-year, 40-*vekttall* program at the Trondheim helsefaghøgskole (Trondheim College

of Health Care Education) and results in the title of *audiograf* (audiographer).

The program consists of 70% theoretical studies and 30% practical studies. The subject areas include audiology, biological and medical subjects, social sciences, and technical subjects.

Bioengineering (Medical Laboratory Technology)

Bioengineering, or medical laboratory technology, is offered in three-year, 60-*vekttall* programs leading to the *vitnemål om 3-årig bioingeniørutdanning* (certificate for 3-year bioengineer education). Through the mid-1980s, this field was known as *fysiokjemikerlinjen* (physiochemistry).

Table 5.7 lists institutions offering bioengineering programs. As with other *ingeniør* (engineer) programs, opportunities for transfer into university programs in engineering fields exist. Completion of the program results in qualification as a *bioingeniør* (bioengineer).

Program: *First-year* subjects and the number of *vekttall* awarded are as follows: general and physical chemistry (4), biochemistry and organic chemistry (6), statistics/mathematics (1), physics (2), electronic data processing (2), anatomy and physiology (2), hematology (2½), and social and administrative studies (½). *Second year:* statistics and mathematics (2), social and administrative studies (½), techniques of measurements and instruments (2), immunology (3), pathology (2), transfusion medicine (2), microbiology (2), clinical chemistry (5), x-ray physics and nuclear medicine (1½). *Third year:* hematology (½), pathology (3), principles of analysis and automation (2), clinical chemistry (6), x-ray physics and nuclear medicine (½), microbiology (3), transfusion medicine (2), project research (3).

Interpreter's Education for the Hearing Impaired

Tolkeutdanning (interpreter's education) is a one-year, 20-*vekttall* program leading to qualification as a *tolk* or *døvetolk* (sign-language interpreter). The contents of the program are as follows: knowledge of group operation; introduction to linguistics; sign language; Norwegian, interpreter education and theory; interpreter methodology; and vocational roles and techniques. The program also includes six weeks of practical training. The program is offered by the Institutt for spesialpedagogikk (Institute for Special Education) of the University of Oslo, previously known as the Statens spesiallærerhøgskole (Norwegian Institute for Special Education).

Occupational Therapy

Completion of the program in occupational therapy (*ergoterapi*) requires three years, 60 *vekttall*, of study, and leads to the *vitnemål om 3-årig ergoterapiutdanning* (certificate for 3-year occupational therapy education). Graduates of this program receive the title of *ergoterapeut* (occupational therapist).

The program is conducted on a trimester basis: September to January, January to April, and April to July. One trimester each academic year is spent in practical training for a total of 20 *vekttall* of practical training for the entire program. The complete program is comprised of the following subjects, with the associated *vekttall* noted in parentheses: Introduction to the field (2); basic theory of occupational therapy (2); people, activity, society (9); patient examination and assessment (10); development of therapeutical treatment programs (30); and indepth studies (7).

Table 5.7 lists institutions offering occupational therapy programs.

Physical Therapy and Mensendieck Physical Therapy

The three-year, 60-*vekttall* program in physical therapy leads to the *vitnemål om 3-årig fysioterapeututdanning* (certificate for 3-year physiotherapist education), and the title of *fysioterapeut* (physiotherapist). The program includes 6 *vekttall* in social science and health; 15 in man and health; 36 in physiotherapy theory and practice; and 3 in physiotherapy in daily health, plus social service. An additional one-year period of practical training results in professional licensure.

Table 5.7 lists institutions offering physical therapy programs.

Bislet College also offers a three-year program in *Mensendieckutdanning* (Mensendieck physical therapy education), an alternate philosophy of physical therapy, through the former Mensendieckskolen i Oslo (Mensendieck School of Oslo). The

Table 5.7. Institutions Offering Education in the Allied Health Sciences, 1993

Key: Institutions are marked with the letters A, B, E, F, MF, O, R and T to indicate programs offered. A = Audiography (*Audiografi*); B = Bioengineer (*Bioingeniør*); E = Occupational Therapy (*Ergoterapi*); F = Physical Therapy (*Fysioterapi*); MF = Mensendieck Physical Therapy (*Mensendiecksykegymnastikk*); O = Orthotics and Prosthetics (*Ortopediteknikk*); R = Radiography (*Radiografi*); and T = *Tolkeutdanning* (Interpreter's Education for the Hearing Impaired). Several of the institutions also offer programs in nursing, social care work for the handicapped or geriatric, or social work. See Appendix B for new combined institutions.

Bergen helse- og sosialhøgskole (Bergen College of Social Work and Health Care Education); Haugevein 28, 5005 Bergen; Tel: +47 55 90 00 30; Fax: +47 55 90 00 11. Formed around 1992 as the merger of Bergen jordmorhøgskole and Bergen vernepleierhøgskole. Program: **E.**

Bioingeniørhøgskole, Rikshospitalet, Oslo. Now part of Bislet høgskolesenter.

Bislet høgskolesenter (see Chapter IV, "The College Sector"). Programs: **B E F MF O R.**

Haukeland helsefaghøgskole (Haukeland College of Health Care Education); Haukelandsbakken 45, 5009 Bergen; Tel: +47 55 29 80 90; Fax: +47 55 29 15 85. Formed around 1992 with the merger of Radiografhøgskolen Bergen, Haukeland sjukepleierhøgskole. Program: **R.**

Fysioterapihøgskolen i Bergen (Bergen College of Physiotherapy); Møllendalsveien 6, 5009 Bergen; Tel: +47 55 29 80 85; Fax: +47 55 29 83 64. Program: **F.**

Fysioterapihøgskolen i Oslo. Now part of Bislet høgskolesenter.

Medisinsk-teknisk senter (Medical-Technical Center) of Trondheim ingeniørhøgskole (Trondheim Engineering College); Olav Kyrres gt. 3, 7005 Trondheim; Tel: +47 73 59 87 30; Fax: +47 73 59 87 31. Program: **B.**

Mensendieck-skolen i Oslo høyskole for fysioterapi, Oslo. Now part of Bislet høgskolesenter.

Østfold ingeniørhøgskole (Østfold Engineering College) Bioengineering Department; Postboks 1192, Valaskjold, 1701 Sarpsborg; Tel: +47 69 14 20 11; Fax: +47 69 14 28 02. Program: **B.**

Radiografhøgskolen, Bergen. Now part of Haukeland helsefagskole.

Radiografhøgskolen, Rikshospitalet, Oslo. Now part of Bislet høgskolesenter.

Institutt for spesialpedagogikk (Institute for Special Education) of the University of Oslo, previously known as the Spesiallærerhøgskolen (Norwegian Institute for Special Education); Boks 55, 1347 Hosle; Tel: +47 67 14 84 90; Fax: +47 67 14 89 13. Program: **T.**

Statens høgskole i ortopediteknikk Now part of Bislet høgskolesenter.

Tromsø helsefaghøgskole (Tromsø College of Health Care Education); Åsgårdsveien 9 A, 9005 Tromsø; Tel: +47 77 64 58; Fax: +47 77 64 58 12. Programs: **B E F R.**

Trondheim helsefaghøgskole (Trondheim College of Health Care Education); Ulstadløkkvn. 15, 7005 Trondheim; Tel: +47 73 51 62 30; Fax: +47 73 53 43 77. Programs: **A E F.**

Ullevål bioingeniørhøgskole, Oslo. Now part of Bislet høgskolesenter.

Ullevål radiografhøgskole, Oslo. Now part of Bislet høgskolesenter.

program leads to qualification as a *Mensendieck-sykegymnaster* (Mensendieck physical therapist).

Advanced education in physical therapy has been available in a *hovedfag* (main subject) program

at the University of Bergen Faculty of Medicine since 1991. Academic requirements are either a *candidatus/a magisterii* degree or completion of a three-year physical therapy program plus the *ex. phil. The hovedfag* in physiotherapy is a two-year, 10-*vekttall* program in general physical therapy, 10 in special physical therapy, and 20 for a thesis. Graduates are awarded the degree of *candidatus/a scientiarum*. Plans to implement a doctoral program in physiotherapy are currently being explored by the University of Bergen.

Prosthetics and Orthotics

The three-year, 60-*vekttall* program in prosthetics and orthotics is taught only at Bislet høgskolesenter and leads to the *vitnemål om 3-årig ortopediingeniørutdanning* (certificate for 3-year orthopedics engineering education). Graduates of this program use the title of *ortopediingeniør* (orthopedics engineer). The program was modeled after that offered by New York University. Students may elect one of two specialties: prostheses and orthotics; or orthopedic footwear. Coursework includes general and technical subjects (mechanics, mechanical technology, electrotechnology, chemistry, and communication); medical studies (anatomy, physiology, orthopedic surgery, biomechanics, and psychology); orthopedic technology; and clinical orthopedic technology for prosthetics and orthotics or orthopedic footwear.

Radiography

The program in radiography is comprised of three years of study, 60 vekttall, and leads to the *vitnemål om 3-årig radiografutdanning* (certificate for 3-year radiography education). Graduates of this program use the title of *radiograf* (radiographer). The program includes 13 *vekttall* in radiography, 15 in preclinical and clinical studies, 5 in science subjects, 5 in social sciences, 5 in supervised studies in a clinical department, 10½ in supervised x-ray technology, 1½ in the radiation department, 2 in theory of radiography, and 3 in practical radiography. Twenty *vekttall* (1600 hours) of the total program is in practical studies.

Radiography is taught at the following institutions: Haukeland helsefaghøgskole (Haukeland College of Health Care Education); Bislet høgskolesenter (Bislet College); and Tromsø helsefaghøgskole (Tromsø College of Health Care Education). Graduates of either the three-year radiography program or nursing program are eligible for the *1 Års videreutdanning i stråleterapi* (1 year further education in x-ray therapy) program offered at Bislet høgskolesenter.

Dental Hygiene and Dentistry

Dental Hygiene

A two-year postsecondary program in dental hygiene leads to the title *tannpleier* (dental hygienist). From 1924 to 1970, the program required one year of study. Qualification as a *tannpleier* results in one year of transferrable credit in a *cand. mag.* degree, should graduates wish to pursue further education. Programs are offered by the Faculties of Dentistry of the Universities of Bergen and Oslo.

The programs give students an understanding of the basic sciences for health service and the necessary operative skills. For example, the first year of the program at the University of Bergen is devoted mainly to structured coursework, and the second year to individual research and completion of a written report. Treatment of patients begins in the first semester and continues throughout the program. Near the end of the second year, students complete four weeks of practical experience.

The curriculum (with lectures and clinic hours, noted respectively, in parentheses) includes general anatomy (32/-), tooth morphology anatomy (18/-), cariology and endodontics (30/-), chemistry (20/-), biochemistry (30/-), community dentistry (45/160), dental health education (50/25), dental radiology (15/39), dental technology and materials (16/-), dentistry for special groups (20/50), microbiology and hygiene (36/17), oral surgery and oral medicine (14/6), orthodontics (12/20), pathology, general and oral (14/6), pedodontics (28/40), periodontology (25/0), pharmacology (26/-), physiology (15/-), nutrition (20/-), preventive dentistry (75/750), prosthetics (10/15), general dental rehabilitation (25/50), geriodontology (18/-), and psychology (24/-), for a total of 634 forty-five minute lectures and 1172 clinic hours.

The Faculty of Dentistry of the University of Oslo also offers a one-year program for dental assis-

tants in the *tannlegesekretærskolen* (dental assistant school). Completion of this program does not lead to any transfer credit in a university degree program. Admission is based upon completion of a minimum of grade 9. Applicants must be at least 18 years of age. A similar program is also offered at the *videregående skole* (upper secondary school) with the expectation that it will be discontinued at the University of Oslo.

The current curriculum (with lectures in parentheses) includes oral anatomy (14), general anatomy (16), oral pathology (18), nutrition/chemistry (18), pharmacology (14), dental materials (30), radiology (18), microbiology/hygiene (20), dental instruments (24), secretarial duties (10), bookkeeping (24), endodontics (12), periodontology (10), pedodontics/prophylactic (10), and oral surgery (10), for a total of 248 forty-five minute lectures.

Dentistry

The degree of *candidatus/a odontologiae (cand. odont.)* (candidate in dentistry) may be undertaken at the Faculties of Dentistry of the Universities of Bergen and Oslo. Both institutions offer professional dentistry training according to the following structure: Preclinical courses are studied for two years; paraclinical subjects for 1½ additional years; and clinical subjects for a further 1½ years.

Both faculties award the degree of Master of Science. This program includes four semesters of study and is taught entirely in English. *Vekttall* (credits) are not used. Admission requires completion of a professional degree in dentistry from a recognized university. The aim of these master's degree programs is to qualify candidates for a career in a clinical specialization, teaching, research, or as an employee in oral health service administration. In 1992 the Master of Science (Dentistry) degree replaced the former degree of *licentiate odontologiae* (licentiate in dentistry).

Both faculties offer three- to five-year diploma programs of clinical specialization leading to the title of *spesialist* (specialist) in orthodontics, pediatric dentistry, periodontics, oral surgery, or oral medicine. The recognition of the specialization is recommended by the Faculty of Dentistry and approved by the Health Directorate in an official letter. The *doctor odontologiae* (doctor in dentistry) degree is a three-year advanced academic degree open to graduates of the *cand. odont.* program.

MEDICINE

Professional Degree

The study of medicine requires six years of academic training and leads to the professional degree of *candidatus/a medicinae (cand. med)*. Each of the four universities awards this degree. The title of Medical Doctor is awarded by the Ministry of Health and Social Welfare upon completion of 1½ years of compulsory internship *(turnustjeneste)*.

Medical education at the University of Bergen is organized in two parts for a total of 28 examinations: 2½ years of preclinical training plus 3½ or four years of clinical training. The thirteenth semester is optional and culminates in a final paper.

The grading scale used in the Faculty of Medicine at the University of Bergen differs from that used at other faculties. The grading scale with its suggested US equivalent is: *laudabilis cum litteris commendatiis* (11.00-12.00) = (US grade of) A; *laudabilis* (9.00-10.99) = (US) A-/B+; *haud illaudabilis* (7.00-8.99) = (US) B-/C+; *non contemnendus* (6.00-6.99) = (US) C or (0.00-5.99) = (US) F.

The University of Trondheim Faculty of Medicine offered only the clinical portion of medical education from 1975 to 1992 to students who had completed the preclinical portion elsewhere. Since the fall of 1993, the complete preclinical/clinical program has been offered in a 5½-year program. The faculty admits 60 new students per year into the integrated medical program, which uses the Problem-Based Learning teaching method.

The Fagområdet medisin (School of Medicine) of the University of Tromsø offers a three-stage program, in effect since 1990. An examination after each stage is graded on a pass or fail basis. When medicine was first offered at this university in 1973, a four-stage curriculum was used. In 1990 approximately 2000 applicants vied for 60 student spaces (50% are reserved for residents of northern Norway).

Advanced Programs in Medicine, Health Administration, and Occupational Health

Advanced clinical specialization in a medical field is under the auspices of the Ministry of Health and Social Welfare. Universities cooperate by offering lectures, but these are not university courses.

Some clinical specializations require licensure examinations.

Doctoral degree programs in medical subjects result in the degree of *doctor medicinae (dr. med.)* and are defined as three-year programs. For further information on doctoral degrees, see Chapter IV.

A few advanced programs are offered by faculties of medicine in cooperation with other university faculties. For example, the University of Oslo's Faculty of Medicine, in cooperation with the Faculty of Social Sciences, offers a one-year fulltime program for physicians and other professional health care workers in health care administration who hold the minimum of a *cand. mag.* degree. In addition, the Faculty of Medicine in association with three other faculties offers a one-year program in occupational health for qualified health personnel and those with other related training and professional experience who also hold the minimum of a *cand. mag.* degree. The University of Bergen offers a two-year Master of Philosophy program in the Medicine of Developing Countries. See also "Public Health," later in this chapter.

NURSING

Basic nursing training and specialization training is offered in *sykepleierhøgskoler* (nursing colleges). Advanced level work leading to positions in administration and management, nursing education, and nursing research is offered at three universities at an institute or department of nursing science (*sykepleievitenskap*).

Study for the qualification *vernepleier* (social educator) may be completed at a few nursing colleges as well as at *vernepleierhøgskole* (social educator colleges). This is not a nursing qualification and is more appropriately classified as a field related to social work and is thus described later under "Sociology, Social Work, and Social Educator Education."

Nursing College Programs

Basic training for nurses is offered in *sykepleierhøgskoler* (nursing colleges) in a standardized tertiary-level program. Admission is based on the standard college and university matriculation requirements. Earlier nursing programs were shorter and included more practical work. (Table 5.8 lists nursing colleges, with specialties offered.)

Nursing training is under the auspices of the National Council for Health and Social Work Education, an advisory body to the Ministry of Education, Research and Church Affairs. Completion of the program leads to the credential of *sykepleier* (nurse in *bokmål* Norwegian) or *sjukepleiar* (nurse in *nynorsk* Norwegian), a professional title giving authorization to practice under the regulations of the Ministry of Social Welfare. Nursing colleges were authorized to award the regional *candidatus/a magisterii* degree in June 1991.

Training for the vocation of nurse requires three years (60 *vekttall*) of fulltime study. A few institutions permit the program to be completed on a part-time basis, usually over a four-year period. Approximately two-thirds of the program is devoted to the general background of nursing history, philosophy and basic ethics, basic concepts and theory of nursing, and the nursing sphere of responsibility. One-sixth of the coursework is devoted to the study of psychology, sociology and social anthropology, health care politics, administration and legislation, and economics. Another sixth is devoted to microbiology, anatomy, physiology and biochemistry, pathophysiology, study of disease including diagnosis and handling of symptoms, and pharmacology. Half of the total study period is in theoretical study and half in practical training.

The many one-year (20 *vekttall)* specialization courses open to graduate nurses include an advanced training course in general nursing (*sykepleier*), in midwifery (*jordmor*), in psychiatric nursing (*psykiatrisk sykepleier*), and in geriatric nursing (*eldreomsorg*) education. Half-year courses (10 *vekttall)* are offered in nursing administration and management (*sykepleieadministrasjon*), and in public health and preventive medicine (*helseforebyggende og forebyggende arbeid*).

University Education in Nursing

Three universities offer advanced and doctoral degrees in nursing administration and leadership, nursing education and nursing research.

Institutt for sykepleievitenskap (Institute for Nursing Science), University of Oslo, was established in 1985 when the Norges sykepleierhøyskole (Norwegian Nurses College) was transferred to the University of Oslo.

Table 5.8. Nursing Colleges With Specialties Offered, 1993

Key: All institutions listed offer the basic 3-year training as a nurse (*sykepleier*), unless otherwise noted. Institutions are coded as follows: * = 1-year supplementary training; M = training as a midwife (*jordmor*); and P = training as a psychiatric nurse (*psykiatrisk sykepleier*); G = geriatric nurse (*eldreomsorg*); V = training in social education. Five other institutions offer this specialized training. Information on this training program and the five institutions is provided later in this chapter in the section on Sociology, Social Work, and Social Education. and Geriatrics. See Appendix B for new combined institutions.

Aker sykepleierhøgskole (Aker College of Nursing); Trondheimsveien 235, 0514 Oslo. Tel: +47 22 15 07 40; Fax: +47 22 15 69 50.

Arendal sykepleierhøgskole (Arendal College of Nursing); Postboks 235, 4801 Arendal. Tel: +47 370 23 2 41; Fax: +47 370 26 964. Program: **P.**

Bergen diakonissehjemmets sykepleierhøgskole (Bergen Deaconess' House College of Nursing); Haraldsplass, Ulriksdal 8, 5009 Bergen. Tel: +47 55 57 57 80; Fax: +47 55 57 58 00.

Bergen helse- og sosialhøgskole (Bergen Health and Social Work College); Haugeveien 28, 5005 Bergen. Tel: +47 55 90 76 00. Programs: ***, M, P, V.** Does not offer basic nursing education.

Betanien sykepleierhøgskole, Bergen (Betanien College of Nursing, Bergen); Vestlundveien. 19, 5033 Fyllingsdalen. Tel:+47 5 5 16 20 00; Fax: +47 55 16 65 01. Program: **G.**

Betanien sykepleierhøgskole, Oslo (Betanien College of Nursing, Oslo); Akersbakken 35, 0172 Oslo. 1. Tel: +47 22 60 20 62.

Diakonhjemmets høyskolesenter (Deacon's House College Center, also known as Norwegian Lutheran Hospital and College, and Diaconia College Center); Postboks 184, Vinderen, 0319 Oslo. Tel: +47 22 45 19 45; Fax: +47 22 45 19 50. Programs: **G, A.**

Diakonissehusets sykepleierhøgskole (Deaconess' House College of Nursing); Lovisenberggate 15, 0456 Oslo. Tel: +47 22 35 83 00; Fax: +47 22 37 49 34. Program: **G.**

Drammen sykepleierhøgskole (Drammen College of Nursing); Postboks 1908, BSS, 3002 Drammen. (Street address: Konggate 51, 3019 Drammen). Tel: +47 32 83 86 30; Fax: +47 32 89 17 11. Program: **P.**

Finnmark sykepleiehøgskole (Finnmark College of Nursing); Postboks 1216, 9601 Hammerfest. Tel: +47 784 12 022; Fax: +47 784 92 626. Program: **G.**

Haugesund sykepleierhøgskole (Haugesund College of Nursing); Postboks 363, 5501 Haugesund. Tel: +47 52 71 27 77; Fax: +47 52 71 57 87.

Haukeland helsefaghøgskole (Haukeland College of Health Care Education); Haukelandsbakken 45, 5009 Bergen. Tel: +47 55 29 80 90; Fax: +47 55 29 15 85.

Haukeland sykepleierhøgskole (Haukeland College of Nursing); Haukelandsbakken 45, 5009 Bergen. Now known as Haukeland helsefagskole. See entry above.

Hedmark sykepleierhøgskole (Hedmark College of Nursing); Kirkeveien 47, 2400 Elverum. Tel: +47 624 10 066; Fax: +47 624 12 511. Program: **P.**

Høgskolen i Harstad sykepleierutdanningen (Harstad College, nursing program); Postboks 2144, 9401 Harstad. Tel: +47 770 70 233; Fax: +47 770 74 305. Program: **V.**

Innherred sykepleierhøgskole (Innherred College of Nursing); 7600 Levanger. Tel: +47 740 80 022; Fax: +47 740 80 450.

Kristiansand sykepleierhøgskole (Kristiansand College of Nursing); Solbergveien 12-14, 4600 Kristiansand. Tel: +47 380 26 990; Fax: +47 380 20 880. Program: G.

Menighetssøsterhjemmets sykepleierhøgskole (Parish Sisters' Hospital, College of Nurses); Rosenborggate 8, 0356 Oslo. Tel: +47 22 69 38 90; Fax: +47 22 69 84 14.

Namdal sykepleierhøgskole (Namdal College of Nursing); 7800 Namsos. Tel: +47 725 72 811; Fax: +47 725 71 330. Program: G.

Nordland sykepleierhøgskole (Nordland College of Nursing); Leitevein 7, 8000 Bodø. Tel: +47 755 24 512; Fax: +47 755 24 790. Programs: P, G.

Østfold sykepleierhøgskole (Østfold College of Nursing); Postboks 1048 øss, 1601 Fredrikstad. Tel: +47 69 31 12 45; Fax: +47 69 31 37 06. Program: P.

Sjukepleiarhøgskolen i Molde (Molde College of Nursing) (formerly Nasjonalforeningens og Møre og Romsdals Sykepleieskole); Glomstuveien 33, 6400 Molde. Tel: +47 712 51 944; Fax: 712 15 850. Programs: P, G.

Sjukepleiarhøgskolen i Ålesund (Ålesund College of Nursing); Åsestranda 6017. Tel: +47 701 41 900. Fax: 701 45 576.

Sogn og Fjordane sjukepleiarhøgskolen (Sogn and Fjordane College of Nursing); 6800 Førde. Tel: +47 578 22 011; Fax: +47 578 29 430. Program: P.

Statens sykepleierhøgskole (National College of Nursing); Bjerregaardsgate 21, 0172 Oslo. Tel: +47 22 60 79 10; Fax: +47 22 69 86 13.

Stavanger sykepleierhøgskole (Stavanger College of Nursing); Madlaveien 13, 4008 Stavanger. Tel: +47 51 53 30 95; Fax: +47 51 53 30 95. Programs: *, P ,G.

Stord sjukepleiarhøgskule (Stord College of Nursing); Postboks 297, 5400 Stord. Tel: +47 534 11 322; Fax: +47 534 12 159.

Sykepleierhøgskolen i Lørenskog (Lørenskog College of Nursing); Postboks 3, 1474 Nordbyhagen (Street address: Nordbyhageveien 30). Tel: +47 67 90 17 50; Fax: +47 67 97 24 41. Programs: *, M.

Sykepleierhøgskolen i Oppland (Oppland College of Nursing) (formerly Nasjonalforeningen og Oppland fylkes sykepleierhøgskole); Ludvig Skattumsgate 30/32, 2800 Gjøvik. Tel: +47 611 74 064; Fax: +47 611 72 189. Program: G.

Sykepleierhøgskolen i Sør-Trøndelag (Sør-Trøndelag College of Nursing); Håkon Jarlsgate 12, 7013 Trondheim. Tel: +47 73 52 91 45; Fax: +47 73 52 81 35. Programs: *, P, G.

Telemark sjukepleierhøgskule (Telemark College of Nursing); Postboks 1408, 3701 Skien. Tel: +47 35 52 55 83; Fax: +47 35 53 06 95. Programs: P, G.

Tromsø helsefaghøgskole (Tromsø College of Health Care Education); M.H.-bygget, Breivika, 9005 Tromsø. Tel: +47 776 45 800; Fax: +47 776 45 812. Programs: M, P, G.

Ullevål sykepleierhøgskole (Ullevål College of Nursing); Postboks 86, Ullevål sykehus, 0407 Oslo. Tel: +47 22 60 70 25; Fax: +47 22 96 19 50. Program: P.

Ullevål sykepleierhøgskole spesialutdanning i psykiatrisk sykepleie (Ullevål College of Psychiatric Nursing); Dikemark, 1385 Solberg. Tel: +47 22 90 87 95. Program: P.

Vestfold sykepleierhøyskole (Vestfold College of Nursing) (formerly Røde Kors Sykepleieskole [Red Cross Nursing School]); Kong Halvdansgate 14, 3100 Tønsberg. Tel: +47 333 17 010; Fax: +47 333 17 374.

Admission: Graduation from a three-year nursing college, and one year of experience as a nurse.

Program: Three years of fulltime study including the *examen philosophicum* lead to the *candidatus/a i sykepleiervitenskap* (candidate in nursing science). The program is divided into 45 *vekttall* of coursework and 15 *vekttall* for a thesis. Graduates can sit the professional examination in nursing science and teaching (*embetseksamen i sykepleievitenskap med pedagogikk*) which qualifies the holder for the teaching rank of *lektor*.

In 1990 the Institute began offering a few of its courses via satellite to studios in seven locations throughout Norway. The Institute offers doctoral studies in nursing, leading to the degree of *doctor rerum politicarum (dr. polit.)*, authorized in 1992.

Institutt for sykepleievitenskap (Institute of Nursing Science), University of Bergen, was established in 1982 as a department of nursing science. Initially it offered education in a one-year basic studies (*grunnfag*) program and a one-semester intermediate studies (*mellomfag*) program. Now the Institute conducts its instruction and administers its examinations through the Faculty of Medicine, although the Faculty of Social Science awards the actual degrees.

Programs: *Candidatus/a magisterii* (*cand. mag.*) is a one-year advanced nursing science program offered to graduates of a three-year nursing college program with at least one year of experience as a nurse; *candidatus/a rerum politicarum (cand. polit.)* is a two-year advanced nursing science program offered since 1986 to graduates of the *cand. mag.* degree in nursing science, or equivalent; *doctor rerum politicarum (dr. polit.)*. Since 1987, a doctoral program in nursing science has been offered. The Faculty of Medicine has requested approval from the Ministry of Education, Research and Church Affairs to replace the *dr. polit.* with a new degree, the *candidatus/a sanitatus (cand. san.)*. This degree would replace the *cand. polit.* degree for graduates in nursing science and other health-related fields.

Avdeling for sykepleievitenskap (Department for Nursing Science), University of Tromsø.

Admission: Graduation from a three-year nursing college plus one year of work experience as nurse for admission.

Program: The seven-semester program, divided into two levels, leads to a *Kandidat i sykepleievitenskap* (Candidate in nursing science).

Level 1 (semesters 1 to 3): The first two semesters of the program are devoted to nursing science, methods of scientific research and theory, ethics, and administrative and pedagogical theory. The *examen philosophicum* must be completed during this first year. The third semester is devoted to clinical practice. Exemption from Level 1 may be granted to students who have completed a one-semester teacher training program for nurses and one year of previous advanced nursing study.

Level 2 (semesters 4 to 7): The fourth and fifth semesters concentrate on nursing science (10 *vekttall*), ethics and research in the health service (5 *vekttall*) and health administration and health education (5 *vekttall*). The final two semesters are spent preparing a thesis (20 *vekttall*).

NUTRITION AND FOOD TECHNOLOGY

Nutrition

The **Nordisk husholdshøgskole** (Nordic College of Nutrition), previously known as the Nordisk høgskole for husholdsvitenskap (Nordic School of Nutritional and Textile Sciences), includes divisions both in Sweden and Norway. The Swedish divisions are the Department of Textile Science located at Chalmers University of Technology and the Institute for Clinical Nutrition at Sahlgrenska Hospital. The Norwegian division is located at the University of Oslo.

The Institutes of Nutrition at the University of Oslo include the Department of Nutrition of the Nordisk husholdshøgskole, the Institute for Nutrition Research of the Faculty of Medicine, and the Section for Dietary Research of the Faculty of Medicine. The Department of Nutrition offers a *candidatus/a magisterii (cand. mag.)* degree in general nutrition according to the regulations of the Faculty of Mathematics and Natural Sciences: the *examen philosophicum* plus courses totalling at least 65 *vekttall* (a total of 3½ years of study). Graduates of the program may elect to include the title of *ernæringsfysi-*

olog (nutritionist) on their *cand. mag.* diploma if they earned at least 30 *vekttall* in nutrition subjects.

A degree in clinical nutrition (dietetics) is offered at the Department of Clinical Nutrition located at the University of Gothenburg, Sweden. This program requires 1½ years of study for those who have completed the first five semesters of the general nutrition program at the Department of Nutrition of the University of Oslo. Graduates of the clinical nutrition program may earn the University of Oslo *cand. mag.* degree provided they have completed the *examen philosophicum*.

Graduates of the *cand. mag.* degree program in general nutrition may continue their education in nutrition for the *candidatus/a scientiarum (cand. scient.)*. This program requires completion of 1½ years of additional study (30 *vekttall*) of which 10 *vekttall* are in coursework and 20 for research and thesis. Two main disciplines are available: general nutrition, and social and international nutrition.

Graduates of the *cand. scient.* program are eligible for admission to the *doctor scientiarum (dr. scient.)* program. This program requires research and a dissertation completed over a period of three years. The program includes 20 *vekttall* of coursework.

Food Technology

Statens næringsmiddeltekniske høgskole (The Norwegian State College of Food Technology); Tungaveien 32, 7004 Trondheim. Tel: +47 07 91 96 25; Fax: +47 07 90 20 44. The Statens næringsmiddeltekniske høgskole provides education in food technology. In 1992 it had an academic staff of 19 and an enrollment of 232. In June 1991, this institution was authorized to award the degree of regional *cand. mag.*

The credential of *vitnemål fra Statens næringsmiddeltekniske høgskole* (certificate from the Norwegian State College of Food Technology) with the title of *Næringsmiddelteknolog* (Food Technologist) is awarded by this institution. The curriculum for students starting in 1992 is a three-year, 60 *vekttall* program, that includes six months of practical training in industry, and a research project. All students follow a preestablished curriculum. Students who enrolled from 1987 through 1991 followed a 60 *vekttall* program, which included a year of practical training. Prior to 1987 the *vekttall* system was not in use and earlier records will indicate only hours of study.

The food technology curriculum requires the following courses (*vekttall* are noted in parentheses):

First year—general chemistry (2), organic chemistry (2), mathematics (3), applied physics (2), microbiology I (1), food technology chemistry (2), food technology chemistry (2), business management I (2), food technology I (4), mechanical education I (1), electronic data processing (1) for a total of 20 *vekttall*.

Second year—practice with report (10), nutrition (2), biochemistry with biotechnology (2), statistics with sensory analysis (2), mechanical education (2), administration and leadership (2) for a total of 20 *vekttall*.

Third year—nutrition technology II with food technology machines (6), business planning and project exam (3), microbiology II (2), hygiene (2), business management II (2), research project (3), and elective (2) for a total of 20 *vekttall*.

The College also offers a one-year fulltime preliminary course (*forkurs*) for 25 students per year who wish to enter the food technologist program but have not completed the secondary-level prerequisite subjects in chemistry, physics, mathematics, and biology.

Pharmacy and Prescriptionist Education

Pharmacy

The professional degree of *candidatus/a pharmaciae (cand. pharm.)* is offered by the School of Pharmacy of the University of Oslo. The five-year pharmacy degree program is divided into first and second stages: Stage one is an eight-semester basic program emphasizing botany, chemistry, and mathematics. Stage two constitutes one year of specialized theoretical study and practical work. Students may specialize in one of the following subjects: microbiology, pharmaceutical chemistry, pharmaceutics, pharmacodynamics, or pharmacognosy.

Prescriptionist Education

Statens reseptarhøgskole (Norwegian School of Prescriptionists); Sven Oftedalsvei 8, 0950 Oslo; Tel: +47 22 25 78 50.

The Statens reseptarhøgskole offers a five-semester program leading to the qualification of *resep-*

tar (prescriptionist). Admission is based on completion of standard college and university matriculation requirements. The program includes 10 months of retail pharmacy work under the supervision of the school and a practicing pharmacist. Graduates are qualified to prepare and dispense drugs, but are not entitled to a pharmacy owner's license, a qualification reserved for university-educated pharmacists. The Statens reseptarhøgskole was authorized to award the regional *cand. mag* in June 1991.

The prescriptionist curriculum, with theoretical and practical hours, respectively, noted in parentheses includes: general chemistry (80 theoretical/80 practical), organic chemistry with biochemistry (90/60), galenical pharmacy (dispensing) (80/170), Latin nomenclature (15/0), pharmacy legislation (60/0), pharmacology (130/0), microbiology (30/30), physiology with anatomy (40/0), elementary pathology (20/0), social pharmacy (70/0) for a total of 515/340 theoretical/practical hours, respectively.

PUBLIC HEALTH

Two universities offer master's programs in public health. These programs are intended primarily for foreign students, although Norwegian students may enroll. Instruction is in English. Completion of the programs does not lead to transfer credit in other university degree programs, nor does it qualify candidates for admission to doctoral study in Norway. Admission requires a *candidatus/a magisterii* or its equivalent for Norwegian students, or a bachelor's degree or equivalent for foreign students.

The Faculty of Psychology of the University of Bergen offers a two-year program leading to a Master of Science in Preventive Health, also known as a Master of Science in Health Promotion.

The University of Tromsø has offered a *kandidat i folkehelsevitenskap* (candidate in public health, translated by the school as Master of Public Health) program since 1987. It is a two-semester, 20 *vekttall* program. The first semester consists of coursework in areas such as epidemiology and health promotion. Those with the degree of *candidatus/a medicinae* are eligible to complete the program after the first semester and are also awarded the *kandidat i folkehelsevitenskap*. The second semester requires more in-depth study and includes a research paper.

The University of Tromsø also offers a six-month noncredit program via distance learning that leads to a Diploma in Health Economics. The program is also taught in English and is primarily for foreign students. See also the section on medicine (above) pertaining to "Advanced Programs in Medicine, Health Administration, and Occupational Health."

VETERINARY MEDICINE

The **Norges veterinærhøgskole** (Norwegian College of Veterinary Medicine); Ullevålsveien 72, 0454 Oslo; Tel: +47 22 96 45 00; Fax: +47 22 56 57 04; a specialized university-level institution, awards the degree of *candidatus/a medicinae veterinariae (cand. med. vet.)*. The program combines study in the basic sciences and clinical veterinary medicine over 11 semesters.

First semester: Medical Nomenclature, Statistics and Epidemiology, Introduction to Veterinary Medicine, Chemistry, and Anatomy;

Second semester: Chemistry, Biochemistry, Animal Genetics, and Anatomy;

Third semester: Animal Genetics, Biochemistry, Anatomy, Physiology, and Mammalian Diseases;

Fourth semester: Anatomy, Physiology, and Mammalian Diseases;

Fifth semester: General Pathology, Animal Nutrition and Hygiene, Parasitology, Microbiology and Immunology, Pharmacology and Toxicology, Nutrition and Health, Large Animal Diseases, and Small Animal Diseases;

Sixth semester: Pathology, Aquaculture and Fish Diseases, Bird and Game Diseases, Parasitology, Microbiology and Immunology, Pharmacology and Toxicology, Nutrition and Health, Large Animal Diseases, and Small Animal Diseases;

Seventh semester: Mammalian Diseases, Reproduction and Obstetrics, Microbiology and Immunology, Pharmacology and Toxicology, Pathology, Bird and Game Disease, Nutrition and Health, Large Animal Diseases, Small Animal Diseases, and Clinical Laboratory Diagnostics;

Eighth semester: Meat Inspection, Pathology, Bird and Game Disease, Nutrition and Health, Large Animal Diseases, Small Animal Diseases, Reproduction and Obstetrics, Clinical Laboratory Diagnostics, Preventive Health Work, and Forensic Medicine and Law;

Ninth semester: Aquaculture and Fish Diseases, Nutrition and Health, Meat Inspection, Large Animal Diseases, Small Animal Diseases, Reproduction and Obstetrics;

Tenth semester: Aquaculture and Fish Diseases, Meat Inspection, Large Animal Diseases, Small Diseases, Reproduction and Obstetrics, and Preventive Health Work;

Eleventh semester: Forensic Medicine and Law, Experimental Animal Science, Other Diseases, Aquaculture and Fish Diseases, Large Animal Diseases, and Small Animal Diseases.

The degree of *doctor scientiarum* may be awarded upon completion of three years of study beyond the degree of *cand. med. vet.* Also available is the traditional doctoral degree of *doctor medicinae veterinariae.*

The institution uses a grading scale different from other university-level institutions. The percentages in parentheses indicate approximate grade distribution:

	Veterinary Medicine Grading and Approximate Distribution	Suggested US Equivalent
Utmerket godt (excellent)	11.00-12.00 (1%)	A
Meget godt (very good)	9.00-10.99 (52%)	A-/B+
Godt (good)	7.00-8.99 (48%)	B/B-/C+
Noenlunde godt (fair)	6.00-6.99 (0%)	C

Hotel and Restaurant Management and Training

Education in the fields of hotel, restaurant, and tourism management and training is provided by two college-sector institutions: the Norwegian College of Hotel Management and Stabekk College.

Norsk hotellhøgskole (Norwegian College of Hotel Management); Postboks 2534 Ullandhaug, 4004 Stavanger; Tel: +47 51 55 70 11; Fax: +47 51 87 21 14. Norsk hotellhøgskole was established in 1912 as the Norsk hotellfagskole (Norwegian Hotel Vocational School). It became the Norsk hotellhøgskole in 1983. It is the only institution of hotel and tourism management exclusively in Scandinavia. The institution enrolled 478 students and employed 21 instructors and a large number of guest lecturers. It operates hotel administration, and tourism administration divisions.

In addition to completion of the standard college and university matriculation requirements, the institution requires that applicants have two years of relevant work experience and have completed a five-week intensive *bransjeteoretisk forkurs* (preliminary course in hotel and restaurant theory). Holders of a secondary-level *fagbrev* (vocational qualification) as cook or waiter who have two years' work experience can enroll in a special one-year course in *kjøkken-og restaurantledelse* (food and beverage management). They can qualify for admission to the regular *høgskolekandidat* program provided they meet the general admission requirements. As of 1993, this course no longer qualifies students for admission, but is still offered as a noncredit course for professionals in the field.

In addition to the regional *cand. mag.* which the institution was authorized to award in June 1991, the College awards the following credentials:

1. *Høgskolekandidat i hotelladministrasjon* (College Candidate in Hotel Administration): two-year, 40-*vekttall* program.
2. *Høgskolekandidat i reiselivsadaministrasjon* (College Candidate in Tourism Administration): two-year 40-*vekttall* program.
3. *Høgskolekandidat* (College Candidate) in Service Management: one additional year (20 *vekttall*) of study. Admission is very selective; only 50 students enroll annually.
4. Master of Science, awarded upon completion of *masterstudium i internasjonal hotell- og reiselivsadministrasjon* (master's study in international hotel and tourism administration). This program is jointly offered with Cornell University and Florida International University (United States). Students must hold the *høgskolekandidat* in Service Management for admission to the program. Students follow a one-year special course at Cornell University and then complete an additional year of coursework and thesis at the Norwegian College of Hotel Management.

Stabekk høgskole (Stabekk College); Ringstabekkveien 105, 1340 Bekkestua; Tel: +47 67 12 07 20; Fax: +47 67 58 13 96. Stabekk høgskole was formed in the late 1980s as a result of the merging of Stabekk husstellærerhøgskole (Stabekk Home Economics Teachers' College), Statens skole for husøkonomer (National School for Home Economics) and Statens skole for kostholdsøkonomer (National School for Institutional Nutrition). The

College offers academic programs in accommodation management and institutional catering management. It also has authority to award the regional *cand. mag.* degree.

Academic programs completed at Stabekk høgskole receive full academic recognition for purposes of transfer to *candidatus/a magisterii* programs. The programs offered are:

1. *Husøkonom* (Accommodation Manager): two-year, 40-*vekttall* program that qualifies graduates to work in the housekeeping sector in hotels. The program includes coursework in environmental upkeep, economics and administration, and integrated subjects.
2. *Kostøkonom* (Institutional Catering Manager): two-year, 40-*vekttall* program that qualifies graduates to be cooks in institutional settings. The program includes coursework in environmental upkeep, economics and administration, and integrated subjects.
3. *Faglærer* (specialized subject teacher) program: Instruction for a *hovedfag* (main subject) examination is offered in nutrition, health, and environmental subjects leading to the degree of *hovedsfagskandidat* (main subject candidate). The document awarded may also use the terminology *eksamen i hovedfag* (examination in a main subject). It qualifies the specialized subject teacher with the teaching rank of *lektor* (instructor).

Journalism

The professional training of journalists is offered by the **Norsk journalisthøgskole** (Norwegian School of Journalism, also known as the Norwegian College of Journalism); Postboks 8167 Dep, 0034 Oslo; Tel: +47 22-50 08 00; Fax: +47 22-73 03 60. The school was founded in 1965. In 1992 it had a teaching staff of 13 and enrolled 135 students.

The School was authorized to award the regional *cand. mag.* degree in February 1981. Admission requires completion of the standard college and university matriculation requirements, but the school prefers to admit older students who have had some higher education or work experience.

The two-year program leads to the credential of *fageksamen i journalistikk* (subject examination in journalism). The name of this credential is expected to change to *høgskolekandidat i journalistikk* (college candidate in journalism) once a *vekttall* (credit) system is instituted. This program may be extended to three years in the near future. Through at least 1992, the two-year journalism program included five examinations: journalism I and II, social sciences, Norwegian, and newspaper science. The School also offers a one-semester program in foreign affairs reporting.

Two-year journalism programs are also offered at Møre og Romsdal distriktshøgskole, Volde and Høgskolesenteret i Nordland.

Law

Professional legal studies are offered by the Juridiske fakultet (Faculty of Law) at the universities in Bergen, Oslo, and Tromsø. The *juridisk embetseksamen* (law professional program) results in the *candidatus/a juris (cand. juris)* degree.

The program offered by the Faculty of Law at the University of Oslo consists of five parts, each requiring one year of study and terminating in an examination. In addition, the *examen philosophicum* (one-half year) must be passed prior to taking the first part examination in law. The curriculum is as follows: Part One—Introduction to Jurisprudence; Constitutional Law; Family Law, Matrimonial Property and Inheritance; Law of Torts; and Social Security Law. Part Two—Law of Contracts; Law of Commerce Transactions; Economics; and Law of Sales and Purchases. Part Three—Survey of the Norwegian Legal System; Law of Surety; Law of Property, Mortgages, Bankruptcy and Execution; Legal History; and a special elective subject. Part Four—Administrative Law; Sociology of Law; Sources of Law; Tax Law; and Resource and Environmental Law. Part Five—Criminal Law; Civil Procedure; Criminal Procedure; Constitutional Protection of the Individual and International Human Rights; and a special elective subject or a thesis.

The University of Tromsø opened its Faculty of Law in 1987 with a six-year program. The University of Bergen has also offered a six-year program for entering students since 1984. The six-year program consists of four parts: 1) *examen philosophicum* plus a *grunnfag* in the general introduction to public and private law (3 semesters total); 2) private law (2 semesters); 3) additional study in private law (3 semesters); and 4) public, criminal, and international law, including specialized study in an optional subject (4 semesters). Students entering the Faculty

of Law at the University of Bergen in 1972 undertook a 5½-year program consisting of three parts; students entering in 1977 undertook a 5½-year program of *ex.phil.* and *grunnfag* plus two parts in legal studies.

Grading in the Faculties of Law at the Universities of Bergen and Tromsø differs from that of other university faculties. The following scale is used; note that the upper part of the scale is seldom used. The grade of *Stør til Laudabilis* is earned by less than 1% of graduates, and *Kan få Laudabilis* is obtained by approximately 5% of graduates. The average grade is approximately 2.80 to 2.85.

	Grading at the Faculty of Law, Universities of Bergen and Tromsø	Suggested US Equivalent
Laudabilis	1.00 - 2.15	A
Stør til Laudabilis	2.16 - 2.35	A
Kan få Laudabilis	2.36 - 2.55	A
Kan vel få Laudabilis	2.56 - 2.75	B
Haud Illaudabilis	2.76 - 2.95	B
Stør til Haud Illaudabilis	2.96 - 3.15	C
—	3.16 - 6.00	F

The grading system used in the Faculty of Law of the University of Oslo is 2.00 to 2.75, *Laudabilis* (approximately 20% of the students obtain this grade); and 2.76 to 3.1 *Haud Illaudabilis.*

The doctoral degree in law is the *doctor juris.* (see Chapter IV). To practice as an *advokat* (barrister) in the private sector, those with the degree of *cand. juris* must first complete two years of approved legal practice. There is no formal examination upon completion of the two years. Approved legal practice may be in employment as an articled clerk, deputy judge, assistant to a chief constable, or university instructor. Those employed in the legal profession in the public sector, such as in central government, public agencies, public prosecution, or police services, must complete additional approved practice to become qualified *jurister* (lawyers).

Library Science

Education in the field of library science is offered by one public college, the Statens bibliotek- og informasjonshøgskole (Norwegian School of Library and Information Science; Dælenenggt. 26, 0567 Oslo: Tel: +47 22 35 73 90; Fax: +47 22 35 12 60. It was established in 1940 as the Statens bibliotekskole (Norwegian Library Science School) and was known as Statens bibliotekhøgskole (Norwegian Library Science College) from 1980 to 1990. It was authorized to award the *cand. mag.* degree in February 1981. In 1992 the academic staff numbered 22, and enrollment 430. The institution does not presently use the *vekttall* system.

The institution offers the following programs:

1. *Bibliotekar* (Librarian). The first year of basic study (*grunnfag*) includes five weeks of practical training and leads to an examination in library and information science. This portion of the program may be completed via correspondence over two years and requires a half-year of library experience. The examination must be completed at the institution. The second and third years are comprised of additional coursework leading to the *bibliotekar* examination.
2. *Diplombibliotekar i informasjonskunnskap og EDB* (Diploma in Library Science and Electronic Data Processing). Offered since 1984, this two-year program requires for admission either the *bibliotekar*, or a *cand. mag.* which includes three semesters of study in library science.
3. A joint doctoral degree program offered in association with the University of Oslo, leads to the *doctor rerum politicarum* or the *doctor philosophiae* awarded by the University of Oslo.
4. One-semester fulltime advanced programs for holders of the *bibliotekar* lead to a *vitnemål* (certificate).

Military and Police Education

Military Education

Grading at the military academies differs from that used at other tertiary-level institutions. A grading scale of 1 to 6 is used, with 6 as the highest grade and 1 as failing.

Luftkrigsskolen (Air Force Academy); Headquarters Defense Command Norway/Air Staff Educational Division, Oslo mil/Huseby, 0016 Oslo). The Luftforsvaret (Royal Norwegian Air Force) conducts a number of training programs through the academy. The Air Force bases its educational system on a life-long learning concept, where the offi-

cers start their career with basic officer training. After at least one year of service, the officers can apply to Part I training. After two years of Part I training, officers serve at least one year at a military unit before they apply to the Part II training which consists of an additional two-year period. For qualification to the rank of major, the officers complete Staff School Level I; for qualification to lieutenant colonel they complete Staff School Level II.

Basic Officer Training: Admission to basic officer training is based upon completion of the standard college and university matriculation requirements. The program begins with one year of introductory education that includes six months each of officer training and study in a chosen technical track. Upon completion of this portion, graduates attain the rank of sergeant. After one year of on-the-job-training, the rank of second lieutenant is earned.

Three options are available for those wishing to continue their military education: Officer Candidate School, Officer Candidate Flying School, and Technical Officer Candidate School.

- The Officer Candidate School (Befalsskole) program educates personnel for air defense, air control, and administration. The program consists of one year each of academic study and on-the-job training. Those who wish to continue their military education may apply to the Air Force Academy to pursue one year each of general education and study in a chosen military specialization, such as administration, antiaircraft, or logistics, to earn the certificate of *Luftkrigsskolen, 1. avdeling* (Air Force Academy, Part I) or may complete a *høgskolekandidat* (college candidate) degree program at a civilian college and then return to the Air Force Academy for one year of general education to earn the *Luftkrigsskolen, 1. avdeling* certificate. The one year of general education of the *Luftkrigsskolen, 1. avdeling* consists of 20 *vekttall*: sports (2 *vekttall*), defense (4), administration (2), education and leadership (3), language (3), science (3), and social science (3).
- Officer Candidate Flying School (Flygeskole) program is designed to educate pilots and navigators, and is directly linked to *Luftkrigsskolen, 1. avdeling*. The program begins with one year of education that includes six months each of officer training and flying training (academic and 50 hours of flying). Upon completion of this portion, graduates reach the rank of sergeant. The one-year general education portion of the Air Force Academy, Part I program is completed at the Air Force Academy. Flying training may be undertaken at cooperating air force bases in the United States. Training requires approximately one year. Graduates of this three-year program earn the *Luftkrigsskolen, 1. avdeling* certificate.
- The Technical Officer Candidate School (Tekniske skolesenter) program educates personnel for the technical field. Training consists of one year of technical education, and six months each of officer training and specialization training in a chosen technical track. Upon completion of the two years, graduates reach the rank of sergeant. After one year of on-the-job-training, the rank of second lieutenant is earned.

Three options are then available for those continuing in the military: 1) A one-year general education (*Luftkrigsskolen, 1. avdeling*) program; 2) a three-year program at a civilian engineering college (*ingeniørhøgskole*) which leads to the qualification of *ingeniør* (engineer); and is followed by one year of general education at the Air Force Academy; or 3) a civilian engineer (*sivilingeniør*) program completed at a university, followed by one year of general education at the Air Force Academy.

Students completing Part I, through one of the options above are eligible to apply to *Luftkrigsskolen, 2. avdeling* (Air Force Academy, Part II). Part II consist of two years of additional training in military education and advanced academic fields such as administration or sciences. Many of the courses in Part II are taken at the nearby University of Trondheim. Air Force Academy students who wish to transfer their education to a university degree program may be awarded up to one year of credit (20 *vekttall*) for the *Luftkrigsskolen, 1. avdeling* and up to one year of credit (20 *vekttall*) for the *Luftkrigsskolen, 2. avdeling*, according to the National Coordinating Commission.

Staff School Level I (*Stabsskolen 1. avdeling*) normally requires for admission completion of *Luftkrigsskolen, 2. avdeling*, followed by four to six years of job experience. Level I consists of modularized education. The first module gives the students a joint platform in air operations and doctrines; the second module in administration and logistics training; and the third in leadership and resources management training. The three modules require approximately six months and lead to the rank of major.

The Staff School Level II (*Stabsskolen 2. avdeling*) lasts for one year and must be preceded by Staff School Level I. Level II provides education in leadership and management training with the aim of training an officer in management. Completion leads to the rank of lieutenant colonel.

The **Hæren** (Norwegian Army; Headquarters Defense Command/Army Staff Educational Division; Oslo mil/Huseby, 0016 Oslo). The Hæren operates two *hærens krigsskolen* (army academies) in Kristiansund and Oslo. Admission is based upon completion of standard college and university matriculation requirements, and, like the Air Force Academy, follows a two-part training program after basic officer training (see above).

Hærens Krigsskole 1. avdeling (Army Academy, Part I) is comprised of a one-year program of general and military education. *Hærens Krigsskole 2. avdeling* (Army Academy, Part II) represents two additional years of general and military education and is followed by a period of weapons training. The NKU (Nasjonalt Koordinerende Utvalg [National Coordinating Commission]) recommends that the three-year Army Academy training program be granted up to 30 *vekttall* (three semesters) should its graduates wish to transfer this training to a civilian university degree program.

Associated with the army is the Hærens ingeniørhøgskole (Army Engineering College) located in Hønefoss. This institution offers civil engineering programs with the options of military technical civil engineering and military technical construction engineering which lead to the qualification of *ingeniør* (engineer). Students may elect to complete the program according to one of three alternative structures: 1) three-year engineering program for qualified officers; 2) three and one-half year program which includes both engineering education and officer training; or 3) a three-year engineering program without officer training for civilian students. The Army Academy also provides advanced military training at a Staff School.

The **Sjøkrigsskolen** (Naval Academy; Headquarters Defense Command Norway/Naval Staff Education Division); Oslo mil/Huseby, 0016 Oslo. Operated by the Sjøforsvaret (Royal Norwegian Navy), it enrolls 135 students. There is a teaching staff of 25 fulltime civilian professors, and four to five fulltime military instructors.

Entrance into the Naval Academy is based upon the standard college and university matriculation requirements, physical tests, and a psychological interview. Only 7.5% of applicants are admitted.

Training programs are available in three branches: operative, administrative, and technical. Following basic officer training, the academic programs are structured into two parts: *Sjøkrigsskolen 1. avdeling* (Naval Academy, Part I) and *Sjøkrigsskolen 2. avdeling* (Naval Academy, Part II). There are slight variations in how the parts may be completed, though the most common structure is as follows: The first part is comprised of one year each of officer training and military service. Following completion of the first part, two years of obligatory service are required. Of the 20% who apply to the *Sjøkrigsskolen 2. avdeling*, 15% are admitted. Completion of the second part requires two additional years of study at the Naval Academy, followed by another two years of obligatory service.

The Naval Academy uses a *vekttall* system. Part I includes 45 or 46 *vekttall*, and part II includes 49 *vekttall*. The NKU recommends that up to 30 *vekttall* (three semesters of study) for Part I and up to 20 *vekttall* (two semesters of study) for Part II may be transferred to civilian university degree programs (see Chapter IV).

The Naval Academy operates a Staff School much like the one operated by the Air Force Academy. Applicants must have completed *Sjøkrigsskolen 2. avdeling* to be eligible for admission.

Police Education

Education to serve in the police force is provided at one institution in Norway, the **Polithøgskolen** (Police Academy); Slemdalsveien 5, Postboks 5027, Majorstua, 0301 Oslo. Tel: +47 22 46 18 60; Fax: +47 22 69 77 40. Established in 1919, the Academy operates under the Ministry of Justice. Training, which began as a three-month course at the Public Police Academy, has increased over the years. The program, reorganized in 1981, became a two-year program with two parts: *grunnkurs I* (foundation course I) which included seven weeks of theoretical instruction at the school and five weeks of practical instruction at an associated police camp, followed by one year of practical experience at a police station or sheriff's office. *Grunnkurs II* required 31 additional weeks of training. In 1992 the program was extended to three years. In that year, 350 students were enrolled in *grunnkurs II* of the

previous program; 250 starting in the new three-year program. The last class to graduate from the two-year program completed study in spring 1993.

Admission for the three-year program beginning in 1992 requires Norwegian citizenship, completion of the standard college and university matriculation requirements, a spotless civil record, a physical examination, one year of obligatory military service (males only), and sufficient maturity to serve as a police officer. Admission is very competitive. In 1992, 4742 applications were submitted for 250 places.

The Police Academy follows the grading scale used by other institutions of higher education: 1.0 to 6.0, with 1.0 the highest and 4.0 the minimum passing grade. Practical training is graded on a *bestått/ikke bestått* (pass/fail) basis.

The following programs are offered:

- *Høgskolekandidat i politi* (police studies): Three-year, 60 *vekttall* program, that includes practical and theoretical training, with five major components. The first students will graduate in 1995. 1) Police studies (15 *vekttall*)—police education and trade techniques, preventive police service, traffic service, sports (including arrest technique, life saving and first aid), report and inquiry training, criminal techniques, and special police training subjects (rescue service, weapons, overtaking, etc.; 2) Law studies (10 *vekttall*)—penalty law, special law, penalty process, traffic law, administrative law, and special areas such as public law and private law; 3) Social studies and language (10 *vekttall*)—psychology and psychiatry, criminology, criminal politics and criminal care, sociology, state and communal knowledge, English; 4) Electives (5 *vekttall*); 5) Practical training (20 *vekttall*)—service in a health and social institution, in child welfare, outpatient contact, criminal care, alcoholic institutions, or with refugees and asylum seekers.
- *Vitnemål* (Certificate): 10 *vekttall*, one semester fulltime, or equivalent in further police specialty training, e.g., investigation, prosecution, patrolling, management.
- Numerous short courses of several weeks' duration in subjects related to police duties that yield certificates of completion. These may be offered at the Polithøgskolen in Oslo or in local municipalities.

As of 1993 there was no provision for transfer credit into colleges or universities.

Physical Education and Sport

A number of colleges and universities offer programs in physical education and sport, but the Norges idrettshøgskole (Norwegian University of Sport and Physical Education, also known as Norwegian University of Physical Education and Sport); Postboks 40, Kringsjå, 0807 Oslo 8. Tel: +47 22 23 46 85 is the only institution in Norway to award the professionally oriented degree of *idrettskandidat* (sports candidate). Founded in 1948 as the Statens gymnastikk skolen (National Gymnastics School), it became a specialized university-level institution in 1968. In 1992 it had an academic staff of 60 and enrolled 450 students. In addition to the standard college and university matriculation requirements, admission is based on physical tests. At present, the institution does not use the *vekttall* system.

The *idrettskandidat* program begins with a one-year basic program (*grunnfag*) in sports. During the second year, students choose one of two tracks: physical education or the coach/trainer track in a specific sport. The third year is comprised of further specialized study in either physical education for the handicapped, outdoor education, culture and sports administration, health education and sports biology, or gymnastics and dance. Upon completion of the third year, either the *faglærer* (specialized subject teacher) qualification in physical education is awarded, or students earn a qualification as a *trener* (coach/trainer). The only other institution awarding the *faglærer* in physical education is Elverum College of Education. The fourth year of the *idrettskandidat* program must be completed at another institution in the college or university system and leads to the *candidatus/a magisterii*. Two additional years of study leading to a *hovedfag* (main subject) examination complete the *idrettskandidat* program.

The institution plans to issue a different credential to foreign students not able to gain competency in certain sports, such as skiing. This credential will not lead to eligibility to teach physical education in Norway.

The Norwegian University of Sport and Physical Education was authorized to award the degree of *doctor scientiarum (dr. scient.)* in 1986.

Psychology

Professional education in psychology leading to the degree of *candidatus/a psychologiae (cand. psychol.)*

may be completed in the Faculty of Social Sciences of the University of Oslo, the Faculty of Psychology of the University of Bergen, and the Institute of Social Sciences of the University of Tromsø.

Education in psychology at the Universities of Oslo and Bergen requires the *examen philosophicum* plus one year of study leading to the examination for the psychology *grunnfag*. A grade of 2.5 is required on this examination for students to qualify for entrance into a two-part professional program. Due to the high demand of students wishing to complete study in psychology, there is a waiting period of three semesters to three years during which students may elect to complete additional education in another subject. Part I is comprised of 2½ years (50 *vekttall*) of comprehensive theoretical study. Part II is comprised of theoretical and practical/clinical work, plus a thesis. At the University of Oslo, Part II requires three years of study, or 60 *vekttall*; at the University of Bergen, Part II requires 2½ years of study, or 55 *vekttall*.

The University of Tromsø's professional degree program in psychology requires five years of study. The first four years are devoted to major psychological topics; the fifth year includes clinical practice and completion of a thesis.

The degree of *doctor psychologiae (dr. psychol.)* requires three years of study for those holding the degree of *cand. psychol.*

The degree of *cand. psychol.* is a prerequisite for licensure as a clinical psychologist.

Sociology; Social Work, Child Welfare, and Local Government Administration; and Social Education

University education in sociology is presently offered by the Universities of Oslo and Trondheim and results in a professionally oriented degree. College-sector education is offered by Colleges of Social Work in the fields of social work and child welfare, and in Colleges for Social Education. Several *distriktshøgskoler* (regional colleges) also provide college education in the fields of social work, child welfare, and social education.

SOCIOLOGY

University education in sociology resulted in the professionally oriented degree of *candidatus/a sociologiae (cand. sociol.)* awarded by the Faculty of Social Sciences of the University of Oslo. Admission to this professional degree has been discontinued. The nonprofessional degree of *candidatus/a rerum politicarum (cand. polit.)* in sociology is awarded by the Universities of Trondheim and Oslo.

The *cand. sociol.* of the University of Oslo was a 12-semester program separated into two divisions. To be admitted to the second division, students completed the *ex. phil.*, achieved a grade average of 2.7 on study leading to the *mellomfag* (three semesters of study) in sociology, plus two semesters of study in another subject. Division two required three years to complete, and, in addition to theoretical study, a field placement and a thesis. Students seeking this type of degree now are admitted to *hovedfag* studies leading to the *candidatus/a rerum politicarum (cand. polit.)*.

Students entering the Institute for Social Work of the College of Arts and Science of the University of Trondheim in the fall of 1993, could take a new program in sociology leading to the degree of *cand. polit.* The program includes 2½ years of professional study in sociology and a thesis. Admission is based upon completion of a three-year program in social work or child welfare (see below), plus two years of work experience in the field, plus one year (20 *vekttall*) of additional university or college study resulting in the *cand. mag.* degree. This study must include 5 *vekttall* each in research methods and social work. The Norges kommunal-og sosialhøgskole (Norwegian State College of Local Government Administration and Social Work), listed in Table 5.10, has been offering instruction for the above program as a pilot project for students entering in 1992 to 1994. Because college sector institutions are not authorized to award degrees higher than the *cand. mag.*, the University of Trondheim issues the *cand. polit.*

The University of Trondheim offered a program for students entering between 1974 and 1991 which led to the degree of *candidatus/a socionomiae (cand. socion.)*. Admission required completion of a 2½-year advanced program for social workers. Applicants to this program must have graduated from either the three-year program in social work or in child welfare offered by a college of social work.

SOCIAL WORK AND CHILD WELFARE

The three years of basic training in the areas of social work and child welfare (social work for chil-

dren) are conducted at college-sector institutions called *sosialhøgskoler* (social work colleges), and at a few of the *distriktshøgskoler* (regional colleges). The institutions offering social work and child welfare programs are listed in Table 5.9.

The National Council for Health and Social Work Education, an advisory body to the Ministry of Education, Research and Church Affairs, has provided the following curricular guidelines for the three-year, 60-*vekttall* program leading to the *vitnemål om sosionomeksamen* (diploma in social work). The number of *vekttall* required for each subject is in parentheses: Social science (10), psychology and social medicine (8), social politics and laws (10), theory of social work (18), and practical fieldwork in outside institutions (14) for a total of 60 *vekttall*.

Child welfare workers work with children, youth, and families who have social problems or are in danger of developing such problems. Their goal is to increase the security and standard of living for children and youth. The three-year program leading to the *vitnemål om barnevernspedagogeksamen* (diploma in child welfare) educates students about children and their families within the social context, and helps create an understanding of social and psychological problems and ways to alleviate these problems. The National Council for Health and Social Work Education has directed that the three-year, 60-*vekttall* program leading to the *vitnemål om barnevernspedagogeksamen* must include education in the following subjects areas (*vekttall* are noted in parentheses): Social science (10), psychology (10), education (10), components chosen by the individual school (10), creative subjects in physical training and sports, music, art, craft, and drama (5), theory in social and residential pedagogy (7), field placements in social and psychiatric institutions, youth clubs, and welfare offices (8) for a total of 60 *vekttall*.

Local Government Administration

The Norges kommunal-og sosialhøgskole (Norwegian State College of Local Government Administration and Social Work) is the only institution in Norway to offer a three-year, 60-*vekttall* program in public administration leading to the *vitnemål om Kommunalkandidateksamen* (Diploma of Local Government Administration Candidate). The first two years of the program are comprised of basic study in economics, law, and social sciences, and a 3-*vekttall* practice period lasting 2½ months that is completed during the second year. The third year includes advanced studies directed towards the tasks and positions in local and county government.

Additional Programs Offered by Social Work Colleges

In addition to the three-year programs, social work colleges and the Norges kommunal-og sosialhøgskole were authorized to award the *cand. mag.* in February 1981.

Diakonhjemmets høgskolesenter, sosialhøgskolen (Diaconia College, Diaconia College Center), part of the Norwegian Lutheran Hospital and College, is a private institution founded in 1890. Prior to 1990, the Diaconia College Center consisted of three independent schools: the School of Nursing, the School of Social Work, and the School of Theology.

Programs: Since the 1970s, the college has offered four-year programs in nursing and social work. The first three years comprise nationally approved programs in social work and nursing; the fourth year is devoted entirely to theology. Additional one-year programs of further education are offered in administration and management, group dynamics and methods in social and health work, theory and methods in professional supervision, family therapy, and caring for elderly people.

Norges kommunal-og sosialhøgskole (Norwegian State College of Local Government Administration and Social Work) offers one-year further education programs in economics/administration, and health and social administration. One-semester programs are offered in gerontology, management for local government employees, and program production for video/TV. A variety of non-credit short courses, referred to as *etterutdanning*, are also offered.

Sosialhøgskolen, Stavanger (Social Work College, Stavanger) conducts four programs of *videreutdanning* (further education): 1) A *barnevern* (child welfare) program, consisting of 20 *vekttall* that is completed on a part-time basis over two years; admission is based on three years of previous related education and two years of work experience; 2) a *ledelse og administrajon* (management and ad-

Table 5.9. Institutions Offering Education in Child Welfare, Local Government Administration, Social Education, and Social Work, 1993

Key: Institutions are marked with the letters **B, K, S,** and **V** to indicate programs offered. **B** = Child Welfare (*Barnevernspedagog*); **K** = Local Government Administration (*Kommunal*); **S** = Social Work (*Sosionom*), and **V** = Social Education (*Vernepleier*). See Appendix B for new combined institutions.

Agder distriktshøgskole (see Chapter IV). Program: **S.**

Bergen helse- og sosialhøgskole (Bergen College of Social Work and Health Care Education); Haugeveien 28, 5005 Bergen; Tel: +47 55 90 00 30; Fax: +47 55 90 00 11. Programs: **S, V.**

Bergen vernepleierhøgskole (Bergen College of Welfare Nursing); now part of Bergen helse- og sosialhøgskole.

Diakonhjemmets høgskolesenter, sosialhøgskolen (Diaconia College Center, School of Social Work). Postboks 184 Videren, 0319 Oslo; Tel: +47 22 45 19 45; Fax: +47 22 45 19 50. Private institution. Program: **S.**

Finnmark distriktshøgskole (see Chapter IV). Programs: **B, S.**

Høgskolen i Harstad (see Chapter IV). Program: **V.**

Høgskolesenteret i Nordland (see Chapter IV). Programs: **B, S.**

Møre og Romsdal distriktshøgskole (see Chapter IV). Programs: **B, S.**

Norges kommunal- og sosialhøgskole (Norwegian State College of Local Government Administration and Social Work, also translated as Norwegian State College of Public Administration and Social Work); Tjernveien 12, 0957 Oslo; Tel: +47 22 16 43 10; Fax: +47 22 16 36 16. Programs: **B, K, S and public administration.**

Oppland distriktshøgskole (see Chapter IV). Programs: **B, S, V.**

Oslo og Akerhus vernepleierhøgskole (Oslo and Akerhus Social Education College). Postboks 372, 1301 Sandvika; Tel: +47 22 13 90 40. Program: **V.**

Østfold vernepleierhøgskole (Østfold Social Education College); Postboks 1189 Gamle Fredrikstad, 1601 Fredrikstad; Tel: +47 69 32 20 89; Fax: +47 69 32 47 80. Program: **V.**

Rogaland vernepleierhøgskole (Rogaland Social Education College); Nærlandsheimen, 4350 Nærbø; Tel: +47 51 43 50 99; Fax: +47 51 43 52 62. Program: **V.**

Sogn og Fjordane distriktshøgskole (see Chapter IV). Program: **S.**

Sosialhøgskolen, Stavanger (College of Social Work, Stavanger); 4008 Stavanger; Tel: +47 51 52 10 80; Fax: +47 51 52 64 95. Programs: **B, S.**

Sosialhøgskolen, Trondheim (College of Social Work, Trondheim); Lade Gaard, 7040 Trondheim. Tel: +47 73 92 05 66; Fax: +47 73 92 25 52. Programs: **B, S.**

Trondheim helsefaghøgskole (Trondheim College of Health Care Education); Ulstadløkkveien 15, 7042 Trondheim. Tel: +47 73 51 62 30; Fax: +47 73 53 43 77. Program: **V.**

ministration) program for health and social work personnel consisting of 20 *vekttall* completed on a part-time basis over two years; admission is based on three years of previous related education and two years of work experience; 3) a *konsultasjons- og veiledningsmetodikk* (consultation and counselling

methods) program of 10 *vekttall*; and 4) a *forskning og formidling* (research and writing) program of 10 *vekttall*.

Social Education

The profession of *vernepleier* (social educator) involves administrative and social work for elderly patients or residents of rest homes and those with mental or physical disabilities. Education for the training of *vernepleier* is offered in several types of institutions: *vernepleierhøgskoler* (social educator colleges), *sosialhøgskoler* (social work colleges), and *distriktshøgskoler* (regional colleges). Social educator colleges were authorized to award the regional *cand. mag.* degree in February 1981. Table 5.9 lists the institutions offering this education.

The three-year, 60-*vekttall* program for qualification as a *vernepleier* includes psychology, pedagogy, social science, law as related to special services, medicine as necessary to the field and background on handicaps, and supervised practical experience representing 50% of the program, of which two-thirds must be in clinical work. The coursework is presented in theme units, such as responsibility and role of *a vernepleier* in an institution, cooperation with health workers, evaluating and dealing with ethical dilemmas, current theories in the field, the individual in society, behavioral theory, living conditions of the handicapped, types of handicaps, rehabilitation, personnel administration, and a research project.

Admission to the program requires completion of the standard college and university matriculation requirements. It is also open to adults over age 23 who have had at least five years of related work experience.

Courses of further education, such as personnel management in the health and social sector, are open to graduates of the *vernepleier* program. These are usually one-semester, 10 *vekttall* programs applicable to a *cand. mag.* degree.

Theology/Religious Studies

The Lutheran Church is the state church of Norway. Almost all institutions offering training for the ministry or teaching religious education are connected to the Lutheran denomination. Three institutions offer studies in theology as preparation for ordination as a Lutheran pastor: The Faculty of Theology of the University of Oslo; Det teologiske menighetsfakultet (Free Faculty of Theology in Oslo); and the Misjonshøgskolen (Mission College), Stavanger. Departments of religious studies of the Universities of Bergen, and Trondheim also offer university programs in *Kristendomskunnskap* (Christian Religion) which can be taken as degree studies or as part of another degree program at a university. The study of Christian religion is primarily for training teachers for schools and the Lutheran Church. A number of private institutions also offer bible studies and missionary training courses.

Det teologiske fakultet (the Faculty of Theology) of the University of Oslo (Box 1023, Blindern, 0315 Oslo).

Programs: Offers two main fields of study: Christian religion and theology (pastoral training). All students must complete the *examen philosophicum* before proceeding to their main studies. Many students complete a *grunnfag* or *mellomfag* in the Faculty of Theology as part of their program in another faculty. The following programs are offered: *grunnfag, cand. philol., cand. theol.*, and the practical theology seminar.

A *grunnfag* (introductory course) comprising study of non-Christian religions, philosophy, Biblical studies, church history, the Christian churches and denominations, dogmatics and ethics is required of all students, regardless of which of the two Faculty of Theology degrees they are planning to pursue. Upon completion, students select either the *cand. philol.* or the *cand. theol.* program.

Candidatus/a philologiae (cand. philol.) studies require 2½ years beyond completion of the four-year *candidatus/a magisterii*, awarded by Det historisk-filosofiske fakultet (Faculty of Arts) since the Faculty of Theology of the University of Oslo is not authorized to award this degree.

Students who wish to study for the *cand. philol.* degree in Christian religion must complete a *mellomfag* (an intermediate course, requiring one semester beyond the *grunnfag*) and a *hovedfag* (an advanced course requiring a further five semesters in this Faculty).

In the *hovedfag* program, half the time is spent on a thesis and the other half in study of the New Testament and its context, Christian doctrine and the philosophy of religion. The preliminary course

in Greek must also be passed during these studies. Students who hold the *cand. philol.* in Christian Religion may proceed in this faculty to the *doctor artium (dr. art.)* or the *doctor philosophiae (dr. philos.)* degrees.

Candidatus/a theologiae (cand. theol.), the professional program in theology which may be elected after students have completed the one-year compulsory *grunnfag* in religious studies, follows prescribed coursework. There is no requirement to complete either a *mellomfag* or *hovedfag* as in the *cand. philol.* program.

The program includes coursework in Greek, the New Testament, Christian doctrine and philosophy of religion, and preparation of a thesis. Students must pass the preliminary examinations in Hebrew, Latin and Greek. The complete program requires 14 semesters, including the *examen philosophicum* and a two-semester program at Det praktisk-teologiske seminar (The Practical-Theology Seminar).

A professional state final examination, the *teologisk embetseksamen*, is required for all who wish to enter the ministry of the State Church. Students who hold the *cand. theol.* may proceed to the *doctor theologiae (dr. theol.)* or the *doctor philosophiae (dr. philos.)*

The grading scale for the degree of *candidatus philologiae* uses the standard university grading scale. See page 32.

In order to be ordained as a Lutheran minister, students must complete two semesters of training at Det praktisk teologiskeseminar (The Practical Theology Seminar), a self-standing institution under the direct supervision of the Ministry of Education, Research and Church Affairs, associated with the Faculty of Theology of the University of Oslo. The first semester is taken during the study period for the *cand. theol.* The second semester must be taken following graduation, and includes practical service in congregations and institutions.

Det teologiske menighetsfakultet (The Norwegian Lutheran School of Theology, formerly translated as The Free Faculty of Theology); Gydas vei 4, 0363 Oslo; Tel: +47 22 46 79 00; Fax: +47 22 69 18 90.

The Norwegian Lutheran School of Theology, also known as the Congregations' Theological Faculty is an independent institution. It was established in 1907 by a group of professors who broke off from the University of Oslo Faculty of Theology to train pastors along the traditional lines of the Lutheran confession rather than the newer academic approach being taken at the university. In 1913 the government authorized the institution to give practical theological examinations, and in 1926 to give the professional examination for the title of Pastor. Until 1990, 70%-80% of all Norwegian Lutheran pastors were trained here. In the 1990s, their number has dropped to about 60%, with 40% being trained in the University of Oslo program.

Since 1972 the government has provided 60%-70% of the institution's funding, with the balance coming from the Lutheran congregations. In 1990 the institution was authorized to award the doctoral degree. Enrollment in 1992 was 630 (40% female). A little less than half were training for the ministry; the others were training to be teachers of Christian religion.

Courses of study are offered in Christian religion as a minor (*grunnfag*) or major (*mellomfag*) or master's (*hovedfag*). Theology and practical ministerial training, training in Christian education for parish work and the theologial doctorate degree. The programs offered are very similar to those of the Faculty of Theology at the University of Oslo. In the *cand. theol.* program, the main difference is in the timing of the mandatory practical training. All students must complete the *examen philosophicum* at a university prior to beginning studies at the School.

In the Christian religion program leading to the *candidatus/a philologiae (cand. philol.)*, students can undertake a *grunnfag i kristendomskunnskap* (introductory course in Christian religion), a *mellomfag* and a *hovedfag*. The *mellomfag* is interdisciplinary study in the Christian religion area at a more advanced level. The work for the *hovedfag* includes coursework, a preliminary examination in Greek, and a thesis.

The professional program in theology leading to the *cand. theol.* requires 13 semesters of study. It is divided into a five-semester elementary section that includes one semester in the Practical Theology Seminar which is connected to Det teologiske menighetsfakultet, a seven-semester advanced section, and one additional semester of study in the Practical Theology Seminar.

The elementary section begins with the *ex. phil.* undertaken usually at the University of Oslo, although the School offers separate lectures in biblical

knowledge and the history of theology and philosophy concurrently. This is followed by two semesters of study which include a primary course in Christian religion. The next semester involves study in recent theology, and leads to advanced theological study in different theological branches and an introduction to practical theology. Service in a parish for six to eight weeks during the summer precedes the practical theology undertaken in the fall, which corresponds to the first of the two required terms in the practical theology seminar (formerly this study was done after obtaining the *cand. theol.* degree). Students serve a practice period in an institution, such as a hospital, and take a group examination and an individual oral test.

The seven-semester advanced section begins with preliminary study in Greek and Hebrew. Students receive five hours a week of instruction in these two languages. The balance of the study is divided into two main parts: Old and New Testament; and church history and systematic theology. The program culminates in the professional state examination (*teologisk embetseksamen*)for the *candidat i teologien*, also known as the *candidatus/a theologiae (cand. theol.)* degree and translated by the institution as Master of Theology. Before ordination, the student must complete one additional semester of training at the practical theology seminar which provides the required practical training for ordination in the Lutheran Church. Completion of studies and successful passing of the professional examination leads to a *Vitnesbyrd* (testimony) of *fullført eksamen som er fastsatt for det praktisk-teologiske seminar* (completion of the examination for appointment of the practical-theology seminar).

The School also offers a one-year special program for training as a catechist (one who is responsible for educational work in the congregation and teaching catechism classes). Applicants must have completed at least two years of higher education, including a *grunnfag* in Christian religion.

Misjonshøgskolen (Missionary College); Misjonsveien 34, 4024 Stavanger; Tel: +47 51 73 10 00.

The Misjonshøgskolen offers a 6 1/2-year program leading to a *cand. theol.* degree, which includes parish practice. The program follows a different study plan than the two programs in Oslo and includes, in addition to the ordinary theological subjects, courses in science of religion, mission science, mission theology, social anthropology and common cultural history. A two-semester *grunnfag* in Christian Studies is also offered. A two-semester study in Christianity and Mission, which gives preparatory education for mission service and for working at the home base of the mission, is offered for persons with previous professional training.

Departments of Religious Studies, Universities of Bergen and Trondheim

Departments of religious studies of Faculties of Arts of the Universities of Bergen and Trondheim also offer studies in Christian religion in formats very similar to that of the Faculty of Theology of the University of Oslo. Students may complete a *grunnfag*, a *mellomfag* and a *hovedfag*. The *grunnfag* and *mellomfag* in religious studies can comprise part of a *candidatus/a magisterii* degree. Students who have completed a *hovedfag* in Christian religion may continue studies for the *doctor artium (dr.art.)*.

Other Institutions Offering Religious Studies

A number of institutions offer bible studies, missionary training, and specialized training for service in the field. Many of these are private institutions. Admission requirements vary from completion of upper secondary school, having attained the age of 18, to no specific requirements. The institutions are listed below by type.

Institutions Requiring Completion of Upper Secondary Studies

Ansgarskolen, Det norske misjonsforbund (Ansgar School, Mission Covenant Church of Norway), Boks 6513 Hånes, 4602 Kristiansand. Three separate schools form the Ansgarskolen: Ansgar Teologiske Seminar, Ansgar bibelseminar, Ansgar bibelinstitutt. The Ansgar teologiske seminar offers a four-year tertiary level program leading to service as a predicant or missionary. The program is offered to students from all Christian religions. This course is recognized by NKU for two years (40 *vekttall*) of transfer credit. It is also recognized as equivalent to a *grunnfag* in Christian studies, unless the student has taken a similar program in Christian religion at the University of

Oslo. The Ansgar bibelinstitutt offers a two-year bible seminar course, which is not recognized for transfer credit to a university program. The Ansgar bibelseminar offers a one-year missionary course.

Baptistenes teologiske seminar (Baptist Theological Seminary; Michelets vei 62 1320, Stabekk). Training for service as a pastor or a missionary in the Baptist Church is offered in a four-year, tertiary-level program. Partial credit, up to two years (40 *vekttall*), will be given if students continue in a university program.

Diakonhjemmets teologisk-administrative høgskole (Theological-Administrative College of the Deacon Hospital); Oslo, also known as Diakonhjemmets høgskolesenter. Boks 23, Vinderen, 0319 Oslo; Tel: +47 22 45 19 45; Fax: +47 22 45 19 50. The institution offers training as a deacon who will normally work in congregations, Christian organizations and within the health care and social sector. The majority of deacons are nurses or social workers, with additional theological deaconal education.

Applicants must have completed training as a nurse or social worker, with elective work in theological and practical church education. (Three-year training programs as a nurse or social worker are offered at the Diakonhjemmets høgskolesenter and are described in the applicable section.) The program to become a deacon requires two semesters in administrative training, two years of part-time study in the care of the elderly, and one year of part-time study in family therapy. Completion of the program leads to vocational qualification as a *Barne- ungdomsarbeider i menighet* (Congregational Children's Worker) and is considered the equivalent of a *grunnfag* in Christianity.

Finnmark distriktshøgskole (Finnmark Regional College; Seksjon for kristendomskunnskap og menighetsarbeid [section for Christian Religion studies and congregational work]); Follumsvei, 9500 Alta. A one-year program leading to qualification as a *menighetssekretær* (congregation secretary) is offered and is considered equivalent to a *grunnfag* in Christianity.

Fjellhaug skoler (Fjellhaug Schools); Sinsenveien 15, 0130 Oslo. These private institutions, operating under the aegis of the Norsk Luthersk misjonssamband (Norwegian Lutheran Mission), offer the following: 1) a four-year training in missionary education, recognized by NKU for up to three semesters (30 *vekttall*) of transfer credit and as equivalent to a *grunnfag* in Christianity; 2) a one-year program in missionary education for those who are already serving as missionaries; and 3) a half-year and one-year bible study.

Indremisjonsselskapets bibelskole (Norwegian Lutheran Inner Mission Society's School); Boks 6830 St. Olavs plass, 0130 Oslo. This private institution offers one- and two-year programs in bible and service study, and in church singing and music, as well as a half-year course in bible study. The two-year course in music satisfies a *grunnfag* and *mellomfag* in music in a university program. *Hovedfag* study is also offered. Some of the studies are offered in conjunction with the Norsk lærerakademi for kristendomskunnskap og pedagogikk (Norwegian Academy for the Study of Religion and Education).

Luthersk bibel- og menighetsseminar (Lutheran Bible and Congregational Seminary); Josefines gate 3, 0351 Oslo. This private institution offers tertiary-level training for the pastorate of the Evangelical Lutheran Free Church (this is not the state Lutheran Church.) A two-year course in Christian religion is offered, for which partial transfer credit as a *mellomfag* may be given in university programs. Several half- and one-year bible courses, and courses in children and youth work, evangelism, and mission service are offered.

Menighetsbibelskolen (Congregational Bible School; Sandefjord). The institution belongs to the Pentecostalist congregation. Half- and full-year courses emphasizing knowledge of the Bible and congregation practice are offered.

Møre og Romsdal distriktshøgskole linje for kristendomskunnskap og menighetsarbeid (Møre and Romsdal Regional College, Section for Christian Religion Study and Congregational Work); Boks 188, 6101 Volda. This regional college offers three programs in various aspects of religious service: a four-year program cosponsored with the Volda Teachers' College which leads to qualification as a *kateket* (catechist) that consists of

study in Christianity, congregational work, pedagogics and optional courses; a three-year program in church-administration education which qualifies graduates for the position of *kirkeverge* (church verger); and a two-year program which qualifies graduates to be a *menighetssekretær* (congregation secretary). The college offers both a *grunnfag* and a *mellomfag* in Christianity.

Norsk diakonihøyskole (Norwegian Deacon College); Lovisenberg 11, 0456 Oslo. This private institution offers a one-year tertiary-level training to become a deacon.

Norsk lærerakademi for kristendomskunnskap og pedagogikk (Academy for the Study of Religion and Education); Kirstendomsseksjonen, Amalie Skrams vei 3, 5035 Bergen-Sandviken.

Programs offered include one-year and 1½ year courses in Christian religion and in pedagogical studies.

INSTITUTIONS WITH OPEN ADMISSION

The following institutions offer half-year to two-year courses in Bible studies, missionary training and related fields. No university transfer credit for this work is recognized in Norway.

1. Ansgar Bibelskole (Ansgar Bible School), Boks 6513 Hånes, 4602 Kristiansand.
2. Bibelskolen Bildøy (Bildøy Bible School), 5353 Straume Bibelskolen i Grimstad (Bible School in Grimstad), Østerhus, 4890, Grimstad.
3. Bibelskolen i Trondheim (Bible School in Trondheim), Thonning Owesens gate 20, 7044, Trondheim.
4. Filadelfia Bibelskole (Filadelfia Bible School), Boks 6854 St. Olavs plass, 0130 Oslo.
5. Fjellheim Bibelskole (Fjellheim Bible School), Boks 1180, 9001, Trondheim.
6. Fjelltun Bibelskole (Fjelltun Bible School), Gulaksveinen 4, 4017, Stavanger.
7. Lagets Bibel- og Evangeliseringssenter (Lagets Bible and Evangelism Center), Boks 324, 4501 Mandal.
8. Frelsesarmeen Offisersskole (Salvation Army Officers School), Brendsruptoppen 40, 1370, Asker. A two-year course for Salvation Army soldiers is offered.
9. Smyrna Bibelinstitutt (Smyrna Bible Institute), Boks 73, 3178, Våle.

Chapter VI
CORRESPONDENCE AND ADULT EDUCATION

Correspondence Education

Because of Norway's geography, opportunities for completing education via correspondence are much in demand. Many college and university programs may be completed or partially completed via correspondence.

Three organizations that offer educational programs primarily through correspondence are described below.

- **NKI ingeniørhøgskole** (NKI College of Engineering; Hans Burums vei 30, 1340 Bekkestua; Tel: +47 67 58 88 00; Fax: +47 67 53 05 00) offers part of its three-year *ingeniør* programs via correspondence, as well as its secondary-level *forkurs* (preparatory course). The affiliated Senter for fjernundervisning (Center for Distance Education) offers programs only via television and correspondence through the NKI fjernundervisning (NKI Distance Education) department.

  Educational programs comprising 10 *vekttall* (the equivalent of one semester of study) or 20 *vekttall* (the equivalent of two semesters of study) are available. The programs lead to certificates (*vitnemål*) and receive full recognition for purposes of transfer into degree programs at universities and colleges. The programs are listed below, with their respective *vekttall* value:
  - *bedriftsøkonomi* (business economics), 10
  - *bedriftsøkonomi* (business economics), 20
  - *økonomi og ledelse* (economics and management), 10
  - *ledelse og administrasjon for helse- og sosialsektoren* (management and administration for health and social sectors), 20
  - *ledelse for helse- og sosialsektoren* (management for health and social sectors), 10
  - *administrasjon for helse- og sosialsektoren* (administration for health and social sectors), 10

- **NKS (Norsk korrespondanseskole/Norwegian Correspondence School) Foundation for Distance Education** (Postboks 5853, Hegdehaugen, 0308 Oslo; Tel: +47 22 56 85 00; Fax: +47 22 56 85 37) was established in 1914 to provide education accessible to people at work or home. It offers programs at all levels of education, primary through tertiary.

- NKS Foundation established the NKS høgskole (NKS College) in 1986. NKS College offers a number of programs in business that are fully recognized for purposes of transfer credit to university degree programs. Instruction is conducted via correspondence, telephone, and computer. Examinations are conducted in about 60 locations all over Norway, and internationally at the end of each semester.

  The normal study load is 50% of fulltime, or completion of 10 *vekttall* per semester. Except for the first program that results in a *høgskolekandidat* degree, the programs listed below lead to certificates (*vitnemål*). The number of *vekttall* required to complete each program are noted. Single subjects of 2 and 4 *vekttall* each are also offered.
  - *høgskolekandidat* (college candidate) in *økonomi og ledelse* (economics and management), 40
  - *bedriftsøkonomi* (business economics), 20
  - *ledelse i offentlig virksomhet* (leadership training in public operations), 20
  - *ledelse* (management), 10
  - *økonomi* (economics), 10
  - *markedsføring* (marketing), 10
  - *grunnfag i markedsføring* (foundation course in marketing), 20

Adult Education

Adult education has a long tradition in Norway. The Norwegian Association of Adult Education was

formed in 1932 as an umbrella organization to coordinate the various organizations offering adults education ranging from primary to upper secondary programs, short programs in the higher educational sector, and vocational and company-based cooperative programs. According to labor market policy, vocational programs for adults are funded by the central government, and participants receive a salary while enrolled.

Education in Norwegian Language and Culture

Education in the Norwegian language and culture is offered by municipalities to immigrants. The municipalities receive complete funding from the central government.

Folkehøgskole (Folk High School)

Half-year, one-year, and shorter specialized programs, usually in the areas of culture, language, or the arts, may be undertaken by young adults aged 17 or older at a residential *folkehøgskole* (folk high school). Approximately 80 institutions with no set curricula or examinations offer opportunities for personal growth. Although they are partially state-funded, folk high schools are usually operated by private organizations and are not part of the formal system of education. Graduates receive a leaving certificate that neither qualifies them for admission to higher education nor leads to transfer credit applicable to university or college degree programs.

Folkeuniversitet (People's University)

Folkeuniversitet (People's University) refers to informal adult education conducted at a variety of sites throughout Norway. Courses in art, languages, music, philosophy and similar subjects are available to students 15 years of age or older. There are no formal admission requirements to *folkeuniversitet*, and courses are not applicable to any secondary or university program.

Folkeuniversitet centers may offer instruction for upper secondary school, college, and university-administered examinations. Documentation will thus be issued by the examining authority, i.e., the upper secondary school, college, or university.

Chapter VII
INTERNATIONALIZATION AND STUDY ABROAD OPPORTUNITIES

Norway is fully committed to increasing internationalization opportunities in academic programs. It has been involved in Nordic cooperation activities for many years and is at present a full partner in ERASMUS (European Community Action Scheme for the Mobility of University Students).

Nordic Cooperation

The Nordic Council was founded in 1952, and the Nordic Council of Ministers was founded in 1971. Because of agreements made by these bodies, citizens of the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) can travel freely between the countries without passport control, transport and communication is developed between the countries, joint research is undertaken in many fields, and a number of cooperative arrangements in the education field exist. Examples of this cooperation include the relationship between the Nordic Institute for Studies in Urban and Regional Planning, located in Stockholm; and the Nordic School of Public Health in Gothenburg, Sweden. There are specialized courses open to citizens of any of the countries and Nordic students may enroll freely in universities within the Nordic area. Students with university admission qualifications from upper secondary schools in any one of the other Nordic countries are eligible for admission to higher education in any of the other Nordic countries, provided all requirements are fulfilled.

There is also *general* recognition of academic qualifications for upper secondary school placement, and university and college credit transfer by the educational institutions within the Nordic countries. Each institution or college may decide the extent to which *specific* placement or credit is given for previous study in connection with further studies in a specific subjects.

The Nordic Association of University Administrators was formed in the mid 1970s to increase and formalize cooperation between Nordic university administrators. Planning groups were set up to organize specialist seminars in the different administrative fields. In particular, the Planning Group on Recognition of Degrees and Credit Transfer was formed to discuss and coordinate issues of importance to student mobility between the Nordic countries.

NORDPLUS (the Nordic Programme for the Mobility of University Students and Teachers) was developed by the Nordic Council of Ministers. Begun in 1988, its goals are to promote wide-ranging and intensive cooperation between the universities and colleges of the Nordic countries to establish a Nordic educational community, to substantially increase the number of university students carrying out an integrated and fully recognized period of study in another Nordic country, and to encourage the increased mobility of teaching staff. NORDPLUS provides grants for fulltime studies on the basic degree level for up to one full academic year with full credit given at the student's home university. The grants supplement the regular study grants provided in each country.

International Programs

One of the goals of the government of Norway in the 1990s is to increase internationalization in the academic sphere. Almost every postsecondary institution in Norway has an active ERASMUS program and their number is increasing annually. One of the results of this involvement is an increase in the number of courses and full programs offered in English.

Norwegian students are encouraged to undertake part of their studies in another country. The Norwegian Loan Fund currently finances approximately 7500 students who are studying outside the country. Such students coming to the United States for study can receive support from this fund. A tax

agreement with the United States exempts Norwegian students studying in the US and receiving funds from either the US or Norway from paying taxes on these funds.

Norway also has a number of programs that provide training to students from developing countries. In 1992 approximately 2000 students from these countries enrolled in Norwegian programs. An example of one such program is NORAGRIC, which was established in 1986 to make Norwegian expertise in rural development available to developing countries. The program includes joint research programs and projects and brings students from developing countries to Norway to study in The Agricultural University of Norway and the Norwegian College of Veterinary Medicine.

Study Abroad Programs for US Students

The programs cited below were available in 1993-94. New programs will probably be added in subsequent years. Graduate students interested in studying in Norway should write to the institutions offering appropriate programs and inquire as to the availability of study in English. In many doctoral courses, classes will be offered in English if there is student demand for it.

All four of the Norwegian universities offer instruction in Norwegian as a foreign language. Students needing further information should write to the universities directly.

Several US institutions offer opportunities for study in Scandinavia for their own students. Among the institutions offering such programs are the University of Massachusetts at Amherst, the American Graduate School of International Management, the University of California, Washington State University, and Pacific Lutheran University.

Other programs include the following.

- The Year Program at the University of Oslo is open to students from the United States and Canada, who have completed one year of university-level Norwegian language study and have finished the sophomore year in college or the freshman year with a minimum 3.0 grade average on a 4.0 scale. Students are placed in Norwegian language courses at the University of Oslo and in one additional course offered by an accompanying professor from the United States or Canada. Students may attend for the full year (mid-August to mid-June) or for one semester only.

  Information may be obtained from the North American Admissions Office of the University of Oslo International Summer School, c/o St. Olaf College, Northfield, MN 55057; Tel: 507-646-3269; Fax: 507-646-3549.
- International Summer School, University of Oslo The six-week summer course is open to students and qualified professionals from all over the world (approximately 70 countries are represented). Courses are offered in two categories: general and graduate. General courses are open to undergraduate and graduate students in Norwegian Language (all levels), Norwegian Art, Norwegian History, Norwegian Literature, Nordic Folklore, Norwegian Culture and Society, Contemporary Problems in Government and Politics, International Relations and Foreign Policy, and Economics Policy and Planning. Graduate courses are offered in Special Education, Peace Research, Energy Planning and the Environment, Medical Care and Health Services in Norway, and International Development Studies.

  Information is available from the International Summer School, University of Oslo, P.O. Box 3, Blindern, 0313 Oslo, Norway or from the Oslo International Summer School, St. Olaf College, 1520 Saint Olaf Avenue, Northfield, MN 55057-1098 (telephone and Fax above).
- The one-semester Scandinavian Urban Studies Term/SUST program, either fall or spring, is organized by the Higher Education Consortium for Urban Affairs and is based in Oslo. Students examine issues facing industrialized welfare states and social democracies in Scandinavia. Courses include Urbanization and Development in Scandinavia, Scandinavia in the World, Scandinavian Art and Literature, and Norwegian Language. Study-travel visits include one or more Scandinavian capitals and a destination in the former USSR. The program is open to students who have completed the freshman year in good academic standing at an accredited four-year college in the United States. Instruction is in English.

  Information is available from the Higher Education Consortium for Urban Affairs/HECUA, Hamline University, Mail #36,

1536 Hewitt Avenue, St. Paul, MN 55104-1284; Tel: 612-646-8832; Fax: 612-659-9421.

- *Folkehøgskole* (Folk High School Programs):The 85 folk high schools offer a wide range of programs at different levels. Instruction is in Norwegian. Students participate in the regular programs offered. No professional or vocational training is offered and no formal academic credits are granted.

  Further information can be obtained from IKF - Informasjonskontor for kristen folkehøgskole, Grakamveien 10 A, 0386 Oslo; Tel: +47 22 49 19 40; Fax: +47 22 49 00 54; or from IF - Informasjonskontoret for folkehøgskolen, Karl Johansgate 12,0154 Oslo; Tel: +47 22 41 66 75; Fax: +47 22 41 52 68.

- One-week classes at Ole Bull Akademiet in Voss are offered in Norwegian folk music for students of music conservatories and other colleges of music or music education. Institutions schedule times with the Akademiet for the program. Instruction is in Norwegian, with English translation as needed.

  For further information, contact Ole Bull Akademiet, Voss Folkemuseum, 5710 Skulestadmo, Norway; Tel: +47 55 51 14 74.

- Master's degree programs in a number of fields, including management of natural resources, international business, dentistry, and fishery biology, are offered in English by several Norwegian universities and specialized university-level institutions. See individual institutional profiles.

Chapter VIII
ADVICE FOR ADMISSIONS OFFICERS

Upper Secondary School

All certificates received from upper secondary school (*videregående skole*) are labeled "*vitnemål fra den videregående skolen* (certificate from the upper secondary school)." This certificate may be issued upon successful or unsuccessful completion of each year of upper secondary education, or only upon completion of the third year of upper secondary education. In the latter case, all subjects studied and grades received for all three years will be listed on the certificate. Care should be taken to assure that records for all three years of education are included. See Chapter III for a full explanation.

The *allmenne fag* (general studies) branch which students may elect to undertake in the upper secondary school provides the most theoretical of programs offered in the upper secondary schools. It prepares students for university or college programs. The *handels- og kontorfag* (commercial and clerical subjects) branch also prepares students for most university or college programs. In 1994 these two branches were combined. Students enrolled in any other branch of upper secondary education are free to go beyond the recommended syllabus for their program and study additional subjects of a university-preparatory or vocational nature. Therefore, advanced university-preparatory subjects taken by students in *any* branch of upper secondary school may be sufficient preparation for success on an Advanced Placement (AP), College Level Examination Program (CLEP), or other equivalent US institutional examination.

Degrees and Diplomas

Except for *videregående skole* (upper secondary school) documentation, the regional *candidatus/a magisterii* degree, and some teacher training credentials, Norwegian institutions do not issue degrees and diplomas according to standardized formats. Admissions officers are advised to carefully read the documentation and look for signs of official issuance, such as original signatures, seals, and stamps. Credentials may be referred to as titles, such as *sosionom* (social worker), or as certificates of examinations, such as a *vitnemål om barnevernspedagogeksamen* (certificate of child welfare examination), or as certificates of education, such as *vitnemål om 3-årig ergoterapeututdanning* (certificate of 3-year occupational therapy education).

Grade Reports/Transcripts

Many Norwegian educational institutions can provide official grade reports in English. Sample document 8.1 is an example from the University of Oslo. Degree programs which consist of single-subject examinations conducted after a large block of study will issue grade reports like that pictured in sample document 8.1. Many degree programs conduct only one final examination to conclude coursework. The example lists the *examen philosophicum* (taken after one semester of study), the history *mellomfag* (taken after three semesters of study, and the social anthropology *grunnfag* (taken after two additional semesters of study). No additional statement of grades is available. Degree structure is fully explained in Chapters IV and V.

Another type of grade report issued by some colleges and universities lists courses of smaller units, usually referred to as *vekttall*. In most cases, 20 *vekttall* represents one year of fulltime study. Individual institutions using other credit or unit systems have been noted in the institutional profiles located throughout this text.

Course content information can be supplied through a *studieplan*, or syllabus, which would usually be kept as archives at the institutions and can be made available to current or former students.

Many Norwegian colleges conduct programs in cooperation with both Norwegian and foreign universities. Within Norway, colleges commonly provide instruction for university advanced-degree pro-

grams, i.e., *hovedfag* (main subject) examinations; the examination, however, is conducted by the cooperating university which will also issue the documentation for the program.

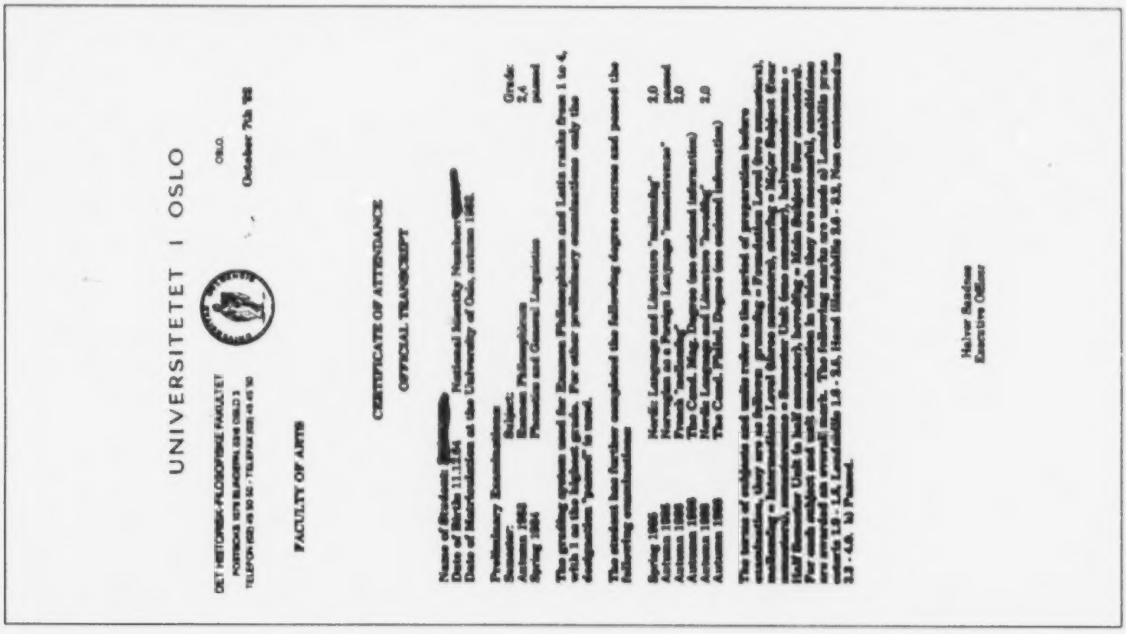
Some colleges cooperating with foreign institutions have arrangements to issue Norwegian credentials upon completion of the foreign study. For example, the Business College of Northern Norway of Høgskolesenteret i Nordland (Nordland College) cooperates with Pacific Lutheran University/PLU in Tacoma, Washington in the United States. PLU accepts students with a two-year *høgskolekandidat* in economics and administrative studies from Nordland College into the senior year of its bachelor's degree program. After receiving the bachelor's degree from PLU, students may complete one additional year in the Nordland College Master of Business Administration program, and apply to the Norges handelshøyskole/NHH (Norwegian School of Economics and Business Administration) for a certificate of equivalency to the Norwegian *siviløkonom* (economist) degree. Students who have completed a three-year *høgskolekandidat* are accepted directly into the PLU Master of Business Administration program.

Another example of this cooperation is found at Høgskolesenteret i Rogaland (Rogaland College). The Danish *candidatus mercaturae (cand. merc.)* degree is awarded upon completion of a joint program with Aalborg University in Denmark. This degree is based on four years of study at Rogaland College, plus a short period in Denmark. The degree is awarded by Aalborg University because Rogaland does not have the authority to award the comparable Norwegian degree of *siviløkonom* (economist).

Nasjonalt Koordinerende Utvalg/NKU (National Coordinating Commission) Recommendations

The NKU makes recommendations for the transfer of credit from private institutions to public institutions. These recommendations are published twice per year and are intended to be advisory in nature; public Norwegian institutions are free to determine what additional subjects students study to qualify for a particular credential.

If more information is needed about the content of educational programs offered by private institutions for which sufficient information is not available, the NKU may be contacted at Nasjonalt Koordinerende Utvalg for Godkjenning av Eksamener, Harald Hårfagresgt. 17, 5020 Bergen; Telephone: +47 55 21 21 39.



UNIVERSITETET I OSLO

DET HISTORISK-FILOSOFISKE FAKULTET
POSTBOKS 1010 BLINDERN, 0315 OSLO 3
TELEFON (02) 45 10 00 - TELEFAX (02) 45 45 10

OSLO
October 7th '88

FACULTY OF ARTS

CERTIFICATE OF ATTENDANCE
OFFICIAL TRANSCRIPT

Name of Student: [redacted] National Identity Number: [redacted]
Date of Birth: 11.11.64
Date of Matriculation at the University of Oslo, autumn 1985

Preliminary Examination:

	Subject:	Grade:
Autumn 1985	Roman Philosophicum	2.6
Spring 1986	Phonetics and General Linguistics	passed

The grading system used for Roman Philosophicum and Latin ranks from 1 to 4, with 1 as the highest grade. For other preliminary examinations only the designation "passed" is used.

The student has further completed the following degree courses and passed the following examinations:

Spring 1985	Nordic Language and Literature "mellomfag"	2.0
Autumn 1986	Norwegian as a Foreign Language "examinatorium"	passed
Autumn 1986	French Studies:	2.0
Autumn 1986	The Cand. Mag. Degree (one optional intersection)	
Autumn 1986	Nordic Language and Literature (compulsory)	
Autumn 1988	The Cand. Philol. Degree (one optional intersection)	2.0

The letters of subjects and grades refer to the period of preparation before matriculation. They are as follows: Level Course (preparation before matriculation), Intermediate Level Course (preparation after matriculation), Advanced Level Course (preparation after matriculation), Intermediate Unit (one semester), Independent or Half Dissertation Unit (a half semester), Introduction or Main Subject Unit (one semester). For each subject and unit examination in which they are examined, candidates are awarded an overall mark. The following marks are used at Landsmålet: 1.0 - 1.4, Landsmålet: 1.5 - 2.5, Hand tilfredsstillende: 2.6 - 3.5, Ikke tilfredsstillende: 3.6 - 4.6, Ikke bestått: 4.7 - 5.0, Passed.

Halvor Readtzen
Executive Officer

Document 8.1. Certificate of Attendance, Official Transcript, Issued by the Faculty of Arts of the University of Oslo (English Version)

BEST COPY AVAILABLE

Role of the National Council on the Evaluation of Foreign Educational Credentials

The National Council on the Evaluation of Foreign Educational Credentials (the Council) is an interassociational group that provides guidelines for interpreting foreign educational credentials for the placement of holders of these credentials in US educational institutions. Its main purpose is to review, modify, and approve placement recommendations drafted for publications used by the US admissions community. The Council also helps establish priorities, research guidelines, and review procedures for international admissions publications. The Council participates in international meetings that involve foreign educational credentials for the purpose of international exchanges of students and scholars. The membership of the Council reflects the diversity of US educational institutions for which recommendations are made. See page iv for a listing of the Council member organizations and their representatives.

The placement recommendations approved by the Council identify the level or stage of education represented by an educational credential and thus the appropriate placement of the holder of the credential in US educational institutions. Council recommendations are not directives, nor do they make judgments about the quality of programs and schools. Quality indicators may be provided by the author in the text. The effective use of placement recommendations depends on careful review of the supporting text in the publication and consideration of individual institutional placement policies and practices.

The Council suggests that institutions apply the same standards for a foreign applicant as for a US applicant with a similar educational background. Recommendations reflect US philosophy and structure of education and may differ from the practices of the educational system being reviewed.

Guide to the Understanding of Placement Recommendations

SECONDARY

May be placed in grade ...

This recommendation is used if freshman admission cannot be recommended, but specific secondary school placement is suggested by the total years of primary and secondary school studies represented by the credential.

May be placed in secondary school at a grade level based on the length and nature of the program followed.

This recommendation is used if freshman admission cannot be recommended. The duration and nature of the program vary. Each educational history should be evaluated to determine the total years of study represented by the credentials.

Primarily a vocational qualification.

This statement is used for credentials awarded for secondary nonacademic training programs in specific job-related fields (e.g., apprenticeships). Admission does not usually require a specific background. The credentials do not give access to higher education.

May be considered for freshman admission if a vocational [technical, specialized] program is appropriate preparation.

This recommendation suggests the specialized nature of the curriculum followed. The wording further suggests that within the foreign educational system the educational opportunities open to holders of the credential in question may be limited to some postsecondary, usually nonuniversity, options.

May be considered for freshman admission.

This recommendation is for graduates of academic, university-preparatory secondary school programs and other programs that can be considered for freshman admission without reservations or qualifiers.

May be considered for freshman admission; may receive advanced placement or transfer credit based on AP, CLEP or equivalent US institutional examination.

This recommendation suggests that any advanced placement or transfer credit awarded for the credential should be validated by nationally standardized examinations for which US institutions have already established policies.

UNDERGRADUATE

Primarily a vocational qualification; admission and placement should be based on other credentials.

This recommendation is used for credentials awarded for postsecondary nonacademic training programs in specific job-related fields. The credential does not give access to further study in the home country; admissions decisions should be based on other credentials.

A professional qualification; admission and placement should be based on other credentials [qualifications].

This recommendation is used for specific studies in professional fields. The credential, by itself, does not give access to further study in the home country.

May be considered for undergraduate [admission with up to ... year(s) of] transfer credit, determined through a course-by-course analysis.

This recommendation sets the maximum amount of credit, depending on the length of study, for a university program. The phrasing "course-by-course analysis" asks the evaluator to look carefully at course contents, such as course descriptions from catalogs, in order to determine the appropriateness of transfer credit.

May be considered for up to ... year(s) of undergraduate transfer credit [determined through a course-by-course analysis].

By using this statement, the Council suggests that undergraduate admission be based on other (usually prior) credentials, though the credential may yield some transfer credit.

May be considered for undergraduate admission with transfer credit awarded on the same basis as for students of ... [US hospital schools of nursing, US schools of art, US seminaries, US schools of music and performing arts, US schools of music].

This recommendation can be used for hospital-based nursing; art schools, music, or performing arts schools; and seminaries that are comparable to these categories of schools in the US for which specific admissions policies are used.

Represents completion of undergraduate teacher education courses.

By utilizing this statement, the Council is providing descriptive information only, not a placement recommendation. Evaluators should follow the practice employed at their institutions for similar undergraduate teacher education courses.

Represents the completion of a specialization in ... [e.g., military science, nursing, graphic arts].

By utilizing this statement, the Council is providing descriptive information only, not a placement recommendation. Evaluators should follow the practice employed at their institutions for similar undergraduate study.

GRADUATE OR ADVANCED PROFESSIONAL ADMISSION

May be considered for graduate admission.

This recommendation is used if the program of study is considered to provide adequate preparation for graduate study, without reservation or qualifiers. Normally such a program represents a total of 16 years of education and gives access to graduate education within the foreign system. This recommendation may be used for programs requiring more than 16 years of study if no graduate transfer credit is recommended.

May be considered for graduate admission in a [closely] related field if the specialized nature of the program followed is appropriate preparation.

This recommendation is used for programs that are generally comparable to US bachelor's degrees but the curriculum is specialized in nature and provides limited or no access to more advanced study in the home country.

May be considered for graduate admission with graduate transfer credit determined through a course-by-course analysis of the ... [fifth, last] year of study; may be considered for admission to a doctoral program.

This recommendation is used for first degrees which represent a level of academic achievement beyond the US bachelor's degree and which merit consideration for graduate admission with graduate transfer credit. Only courses taken at the end of the program (at a more advanced level) should be con-

sidered for transfer credit. The phrase "may be considered for admission to a doctoral program" is used if the level of academic achievement is comparable to that of a US master's degree.

May be considered for graduate transfer credit [determined through a course-by-course analysis].

In this recommendation, the phrasing "course-by-course analysis" asks the evaluator to look carefully at course contents, such as course descriptions from catalogs, to determine the appropriateness of graduate transfer credit.

May be considered for graduate admission as are graduates of ... [US schools of art, US schools of music].

This recommendation is used for art and music credentials that are awarded for the completion of programs of sufficient intensity to be considered comparable to what is required for the completion of a degree program at an American art or music school. The evaluator is directed to look at the credentials in terms of institutional policy for the admission of graduates from analogous schools in the United States.

May be considered comparable to a US master's degree.

This recommendation is used if the program of study is considered comparable to that of a US master's program. This recommendation is usually not used for first degrees that may represent a level of academic attainment comparable but different in program structure to that of a master's degree.

May be considered for admission to a doctoral program [with transfer credit determined through a course-by-course analysis].

This recommendation is used for credentials that may lead to admission into graduate study, including doctoral programs. It does not preclude admission into master's or other postbaccalaureate study.

May be considered comparable to an earned US doctorate.

This recommendation is used if the program of study is considered comparable to a US doctoral program. There may be differences in the structure and requirements of the program, but the credential represents advanced research and dissertation work of a sufficiently high level to recommend doctoral comparability.

A first professional degree in ...[medicine, dentistry, veterinary medicine, law]. May be considered for graduate admission.

This statement is used to point out the first professional degrees awarded in a particular field. No graduate transfer credit is awarded. While preparation for the profession occurs at the graduate level in the US, it usually occurs at the undergraduate level in many foreign educational systems.

Represents the completion of a specialization in ... [medicine, dentistry, psychotherapy, veterinary medicine].

This statement is used for credentials awarded for completion of a medical or dental specialization, following the first professional degree in the field.

A professional qualification. May be considered for academic placement on the basis of other credentials/qualifications.

This recommendation is used for credentials that represent advanced training, primarily nonacademic in nature, and that are not appropriate for placement determination.

Represents advanced graduate achievement in the field of specialization.

This statement is used for credentials that represent advanced, specialized studies that do not yield academic credit.

Placement Recommendations

Name of Credential	Entrance Requirement	Length of Study	Gives Access in Norway to	Placement Recommendation
Compulsory and Upper Secondary Education				
1. *Vitnemål fra grunnskolen* (Certificate from basic school) (p. 3)	Age 7	9 years	*Videregående skole* (Upper secondary school)	May be placed in grade 10.
2. *Vitnemål fra den videregående skolen* (Certificate from upper secondary school) for completion of a *grunnkurs* (basic course) (p. 6)	*Vitnemål fra grunnskolen*	1 or 2 years	*Videregående kurs I* (Advanced course I)	May be placed in secondary school at a grade level based on the length and nature of the program followed.
3. *Vitnemål fra den videregående skolen* for completion of a *videregående kurs I* (advanced course I) (p. 9)	1-year *grunnkurs*	1 year	*Videregående kurs II* (Advanced course II)	May be placed in secondary school at a grade level based on the length and nature of the program followed.
	2-year *grunnkurs*	1 year	Tertiary education	May be considered for freshman admission if a vocational, technical or specialized program is appropriate preparation.
4. *Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *allmenne fag* (general subjects) (p. 9)	*Videregående kurs I*	1 year	Tertiary education	May be considered for freshman admission; may receive advanced placement or transfer credit based on AP, CLEP or equivalent US institutional examination.

5.	*Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *fiskerifag* (fishing trade subjects) (p. 10)	*Videregående kurs I*	1 year	Employment	Primarily a vocational qualification.
6.	*Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *handels- og kontorfag* (commercial and clerical subjects) (p. 10)	*Videregående kurs I*	1 year	Tertiary education	May be considered for freshman admission.
7.	*Vitnemål fra den videregående skolen* in *håndverks- og industrifag* (technical and industrial subjects) for completion of (pp. 10, 12-13):				
a.	*Videregående kurs II*	*Videregående kurs I*	1 year	Employment	Primarily a vocational qualification.
b.	*Videregående kurs III*	*Videregående kurs II*	1 year	Employment	Primarily a vocational qualification.
8.	*Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *husflids- og estetiske fag* (crafts and aesthetic subjects) from the following branches:				
a.	Crafts (p. 13)	*Videregående kurs I*	1 year	Employment	Primarily a vocational qualification.
b.	Dance and ballet (pp. 14, 17)	*Videregående kurs I*	1 year	Advanced ballet studies	May be considered for freshman admission if a specialized program is appropriate preparation.

c.	Drama (pp. 14, 17)	*Videregående kurs I*	1 year	Advanced drama studies	May be considered for freshman admission if a specialized program is appropriate preparation.
d.	Music (pp. 13-14)	*Videregående kurs I*	1 year	Advanced music studies	May be considered for freshman admission if a specialized program is appropriate preparation.
9.	*Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *husholdningsfag* (home economics subjects) (pp. 17-18)	*Videregående kurs I*	1 year	Employment	Primarily a vocational qualification.
10.	*Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *idrettsfag* (physical education subjects) (p. 18)	*Videregående kurs I*	1 year	Tertiary education	May be considered for freshman admission.
11.	*Vitnemål fra den videregående skolen* in *landbruks- og naturfag* (agricultural and rural subjects) for completion of (p. 18):				
a.	*Videregående kurs II*	*Videregående kurs I*	1 year	Tertiary education	May be considered for freshman admission.
b.	*Videregående kurs III*	*Videregående kurs II*	1 year	Tertiary education	May be considered for freshman admission.
12.	*Vitnemål fra den videregående skolen* in *sjøfartsfag* (maritime subjects) for completion of (p. 18):				

a.	*Videregående kurs II*	*Videregående kurs I*	1 year	Employment	Primarily a vocational qualification.
b.	*Videregående kurs III*	*Videregående kurs II*	1 year	Employment	Primarily a vocational qualification.
13.	*Vitnemål fra den videregående skolen* for completion of a *videregående kurs II* in *sosial- og helsefag* (social studies and health studies) (pp. 18-19, 20)	*Videregående kurs I*	1 year	Employment	Primarily a vocational qualification.
14.	*Vitnemål fra den lærlingskolen* (Certificate from an apprenticeship school) with a *svennebrev* (trade certificate) or *fagbrev* (craft certificate) (p. 21)	*Vitnemål fra grunn-skolen* or *Vitnemål fra den videregående skolen* for completion of a *grunnkurs, videregående kurs I*, or *videregående kurs II*	2 to 5 years	Employment	Primarily a vocational qualification.
15.	*Vitnemål fra den videregående skolen* from a *teknisk fagskole* (technical school) (p. 22)	*Vitnemål fra grunnskolen* and work experience or craft skills	2 to 3 years	Employment or tertiary education	May be considered for freshman admission if a technical program is appropriate preparation.

University and College Education

Note: "University matriculation" means that the requirements for entry into a university or college, i.e., Norwegian national matriculation requirements, have been satisfied at the upper secondary level. Students who have completed some coursework for any of the programs listed below may be considered for undergraduate admission with up to one year of transfer credit for each year completed, determined through a course-by-course analysis. When the length of a program is cited, it refers to the standard length of the program when pursued fulltime. The actual period of attendance may vary.

16.	*Examen philosophicum (ex. phil.)* (p. 33)	University matriculation	½ to 1 semester	Further tertiary education	May be considered for up to 1 semester of transfer credit determined through a course-by-course analysis.

17.	*Høgskolekandidat* or *Høyskolekandidat* (college candidate) (pp. 46, 57)	University matriculation	2 or 3 years	Further tertiary education	May be considered for undergraduate admission with up to 2 or 3 years of transfer credit determined through a course-by-course analysis.
18.	*Candidatus/a magisterii (cand. mag.)* (pp. 32-34)	University matriculation	3½ or 4 years	*Cand. philol., cand. polit., cand. scient.*, or master's degree studies	May be considered for graduate admission.
19.	*Candidatus/a magisterii (cand. mag.)*, awarded by a college (also referred to as "regional *cand. mag.*") (pp. 29, 46, 48)	University matriculation or 1 to 3 years of previous college or university study	Up to a total of 4 years which may be in combination with previous college or university study	*Cand. philol., cand. polit., cand. scient.*, or master's degree studies	May be considered for graduate admission.
20.	*Candidatus/a philologiae (cand. philol.), candidatus/a rerum politicarum (cand. polit.)* or *candidatus/a scientiarum (cand. scient.)* (p. 35)	*Cand. mag.*	1½ or 2 years	Doctoral studies	May be considered for admission to a doctoral program.
21.	*Hovedfagskandidat* (main subject candidate), also known as *Eksamen i hovedfag* (examination in a main subject) (pp. 35, 67)	*Cand. mag.*	2 years	Doctoral studies or employment	
22.	*Magister artium (mag. art.)* (p. 35)	*Cand. mag.*	2 years	Doctoral studies	May be considered for admission to a doctoral program.

23. *Licentiate (lic.)* in many fields (p. 36)	Graduate university degree in related field	2 years	Doctoral studies	Placement recommendation cited from Sjogren and Kerr (*Norway: A Guide to the Admission and Academic Placement of Norwegian Students in North American Colleges and Universities*, The College Board, New York, 1985): "May be considered for graduate transfer credit determined through a course-by-course analysis."
24. *Doctor* ("new" type): *dr. art., dr. ing., dr. juris, dr. legis., dr. med., dr. odont., dr. oecon., dr. psychol., dr. polit., dr. scient., dr. theol.* (p. 36)	*Candidatus* degree in related field (except *cand. mag.*), or *mag. art.*	3 years	Employment	May be considered comparable to an earned US doctorate.
25. *Doctor* ("traditional" type): *dr. agric., dr. med. vet., dr. philos., dr. tech.* (p. 36)	Independent research	Undefined	Employment	May be considered comparable to an earned US doctorate.
26. Master's degrees, such as master of arts, master of business administration, master of international business, master of philosophy, master of science (p. 36)	*Cand. mag.* (in most cases) for Norwegian students, or bachelor's degree or equivalent for foreign students	1 to 2 years	Employment	May be considered comparable to a US master's degree.
Agriculture				
27. *Candidatus/a agriculturae (cand. agric.)* (p. 56)	University matriculation	5 years	Doctoral studies	May be considered for admission to a doctoral program.

28.	Master of Science in Management of Natural Resources and Sustainable Agriculture (p. 56)	*Cand. mag.* for Norwegian students or bachelor's degree or equivalent for foreign students	2 years	Employment	May be considered comparable to a US master's degree.

29. *Sivilingeniør* (Civilian engineer) awarded by the Norges landbrukshøgskole. See Engineering below.

Architecture

30.	*Sivilarkitekt (siv. ark.)* (Architect) (p. 57)	University matriculation	5-5½ years	Doctoral studies	A first professional degree in architecture; may be considered for graduate admission.

Business and Economics (See Engineering below for studies in data processing.)

31.	*Bedriftsøkonomeksamen* (Business economics exam) (p. 57)	University matriculation	1 year	Further tertiary education	May be considered for undergraduate admission with up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
32.	*Foretaksøkonom* (Enterprise economist) (p. 57)	*Bedriftsøkonomeksamen*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
33.	*Eiendomsmegler* (Real estate broker) (p. 57)	*Bedriftsøkonomeksamen*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
34.	*Markedskandidat* (Market candidate); *Høyskolekandidat* (College candidate) (pp. 57, 63)	University matriculation	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.

35. *Diplommarkedsøkonom* (Diploma in marketing) (p. 58)	*Markedskandidat*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
36. *Diplomeksportøkonom* (Diploma in export marketing) (p. 58) *diplommarkedsfører* (Diploma in marketing) (p. 64)	University matriculation	3½ years	Further tertiary education	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
37. *Diplomøkonom* (Diploma in business administration) (p. 58)	*Foretaksøkonom* or *høgskolekandidat*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
(pp. 63-64)	University matriculation	3 years	Further tertiary education	May be considered for up to 3 years of undergraduate transfer credit determined through a course-by-course analysis.
38. *Revisor* (Auditor/ Accountant, lower level) (p. 58)	University matriculation	3 years	Employment or further tertiary education	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
39. *Høyere revisorstudium* (Chartered accountant, higher level) (pp. 58-59)	*Høgskolekandidat, siviløkonom, cand. oecon.*, or *cand. juris*	1½ years	Employment or further tertiary education	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
40. *Siviløkonom* (Business economist) (pp. 59-60)	University matriculation or *høgskolekandidat*	4 years from university matriculation or 2 years after *høgskolekandidat*	Doctoral studies	May be considered for graduate admission.
41. *Sivilmarkedsfører* (Marketing) degree (p. 60)	*Diplommarkedsøkonom*	1 year	Employment	May be considered for graduate admission.

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28.	Master of Science in Management of Natural Resources and Sustainable Agriculture (p. 56)	*Cand. mag.* for Norwegian students or bachelor's degree or equivalent for foreign students	2 years	Employment	May be considered comparable to a US master's degree.

29. *Sivilingeniør* (Civilian engineer) awarded by the Norges landbrukshøgskole. See Engineering below.

Architecture

30.	*Sivilarkitekt (siv. ark.)* (Architect) (p. 57)	University matriculation	5-5½ years	Doctoral studies	A first professional degree in architecture; may be considered for graduate admission.

Business and Economics (See Engineering below for studies in data processing.)

31.	*Bedriftsøkonomeksamen* (Business economics exam) (p. 57)	University matriculation	1 year	Further tertiary education	May be considered for undergraduate admission with up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
32.	*Foretaksøkonom* (Enterprise economist) (p. 57)	*Bedriftsøkonomeksamen*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
33.	*Eiendomsmegler* (Real estate broker) (p. 57)	*Bedriftsøkonomeksamen*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
34.	*Markedskandidat* (Market candidate); *Høyskolekandidat* (College candidate) (pp. 57, 63)	University matriculation	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.

35. *Diplommarkedsøkonom* (Diploma in marketing) (p. 58)	*Markedskandidat*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
36. *Diplomeksportøkonom* (Diploma in export marketing) (p. 58) *diplommarkedsfører* (Diploma in marketing) (p. 64)	University matriculation	3½ years	Further tertiary education	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
37. *Diplomøkonom* (Diploma in business administration) (p. 58)	*Foretaksøkonom* or *høgskolekandidat*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
(pp. 63-64)	University matriculation	3 years	Further tertiary education	May be considered for up to 3 years of undergraduate transfer credit determined through a course-by-course analysis.
38. *Revisor* (Auditor/ Accountant, lower level) (p. 58)	University matriculation	3 years	Employment or further tertiary education	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
39. *Høyere revisorstudium* (Chartered accountant, higher level) (pp. 58-59)	*Høgskolekandidat, siviløkonom, cand. oecon.*, or *cand. juris*	1½ years	Employment or further tertiary education	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
40. *Siviløkonom* (Business economist) (pp. 59-60)	University matriculation or *høgskolekandidat*	4 years from university matriculation or 2 years after *høgskolekandidat*	Doctoral studies	May be considered for graduate admission.
41. *Sivilmarkedsfører* (Marketing) degree (p. 60)	*Diplommarkedsøkonom*	1 year	Employment	May be considered for graduate admission.

42.	*Handelsøkonom* (Business administration) (p. 60)	University matriculation	4 years	Employment	May be considered for graduate admission.
43.	*Examen oeconomiae (exam. oecon.)* (p. 60)	University matriculation	3½ years	*Cand. oecon.* studies	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
44.	*Candidatus/a oeconomiae (cand. oecon.)* (p. 60)	*Ex. oecon.*	2 years	Doctoral studies	May be considered for admission to a doctoral program.
45.	Master of International Business (MiB) (pp. 60-61)	*Cand. mag.* or *siviløkonom* for Norwegian students or bachelor's degree or equivalent for foreign students	2 years through 1992, 1½ years currently	Employment	May be considered comparable to a US master's degree.
46.	Master of Science (p. 61)	*Cand. mag.* or *siviløkonom* for Norwegian students or bachelor's degree or equivalent for foreign students	1 year based on *siviløkonom* or 2 years based on *diplomøkonom*	Employment	May be considered comparable to a US master's degree.
47.	Master of Business Administration (p. 61)	*Cand. mag.* or *siviløkonom* for Norwegian students or bachelor's degree or equivalent for foreign students	11 months	Employment	May be considered comparable to a US master's degree.
48.	PRIDE credential (p. 63)	*Siviløkonom, cand. sosiol.*, or equivalent	2 years part-time	Employment	A professional qualification; admission and placement should be based on other qualifications.

49.	*Finansanalytiker studiet* (Program for authorized financial analysts) (p. 63)	Work experience	2 years part-time	Employment	A professional qualification; admission and placement should be based on other qualifications.
	Education				
50.	*Førskolelærer* (Preschool teacher) (p. 65)	University matriculation	3 years	Employment or *allmennlærer* studies	May be considered for undergraduate admission with up to 3 years of transfer credit, determined through a course-by-course analysis.
51.	*Allmennlærer* (General subjects teacher) (pp. 66-67)				
a.	through 1992	University matriculation	3 years	Employment	May be considered for undergraduate admission with up to 3 years of transfer credit, determined through a course-by-course analysis.
b.	since 1993	University matriculation	4 years	Employment	May be considered for graduate admission.
52.	*Faglærer* (Specialized subject teacher) in the following subjects (pp. 66, 67, 69-70)				
a.	*Dans* (dance), *drama* (drama), *forming* (arts and crafts), *morsmål* (mother tongue), *handels- og kontorfag* (business and accounting), *kroppsøving* (physical education), or *musikk* (music)	University matriculation	3 years	Employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.

42.	*Handelsøkonom* (Business administration) (p. 60)	University matriculation	4 years	Employment	May be considered for graduate admission.
43.	*Examen oeconomiae (exam. oecon.)* (p. 60)	University matriculation	3½ years	*Cand. oecon.* studies	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
44.	*Candidatus/a oeconomiae (cand. oecon.)* (p. 60)	*Ex. oecon.*	2 years	Doctoral studies	May be considered for admission to a doctoral program.
45.	Master of International Business (MiB) (pp. 60-61)	*Cand. mag.* or *siviløkonom* for Norwegian students or bachelor's degree or equivalent for foreign students	2 years through 1992, 1½ years currently	Employment	May be considered comparable to a US master's degree.
46.	Master of Science (p. 61)	*Cand. mag.* or *siviløkonom* for Norwegian students or bachelor's degree or equivalent for foreign students	1 year based on *siviløkonom* or 2 years based on *diplomøkonom*	Employment	May be considered comparable to a US master's degree.
47.	Master of Business Administration (p. 61)	*Cand. mag.* or *siviløkonom* for Norwegian students or bachelor's degree or equivalent for foreign students	11 months	Employment	May be considered comparable to a US master's degree.
48.	PRIDE credential (p. 63)	*Siviløkonom, cand. sosiol.*, or equivalent	2 years part-time	Employment	A professional qualification; admission and placement should be based on other qualifications.

49.	*Finansanalytiker studiet* (Program for authorized financial analysts) (p. 63)	Work experience	2 years part-time	Employment	A professional qualification; admission and placement should be based on other qualifications.
Education					
50.	*Førskolelærer* (Preschool teacher) (p. 65)	University matriculation	3 years	Employment or *allmennlærer* studies	May be considered for undergraduate admission with up to 3 years of transfer credit, determined through a course-by-course analysis.
51.	*Allmennlærer* (General subjects teacher) (pp. 66-67)				
a.	through 1992	University matriculation	3 years	Employment	May be considered for undergraduate admission with up to 3 years of transfer credit, determined through a course-by-course analysis.
b.	since 1993	University matriculation	4 years	Employment	May be considered for graduate admission.
52.	*Faglærer* (Specialized subject teacher) in the following subjects (pp. 66, 67, 69-70)				
a.	*Dans* (dance), *drama* (drama), *forming* (arts and crafts), *morsmål* (mother tongue), *handels- og kontorfag* (business and accounting), *kroppsøving* (physical education), or *musikk* (music)	University matriculation	3 years	Employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.

b.	Vocational/technical subjects (e.g., engine mechanic)	*Fagbrev* or *svennebrev* and 2 to 4 years of work experience	1 year as of fall 1992, previously 1 semester	Employment	Represents completion of undergraduate teacher education courses.
53.	*Hovedfagskandidat* (Main subject candidate), also known as *eksamen i hovedfag* (examination in a main subject) (p. 67)	*Cand. mag.* or equivalent	2 years	Employment or doctoral studies	May be considered for admission to a doctoral program.
54.	*Candidatus/a paedagogiae (cand. paed.)* (p. 70)	University matriculation	6½ or 7 years	Doctoral studies	May be considered for admission to a doctoral program.
55.	*Candidatus/a paedagogiae specialis (cand. paed. spec.)* (p. 71)				
a.	Part I	*Ex. phil.* plus 1 year of college or university study, or qualification as an *allmennlærer* or *førskolelærer*, or credential from a 3-year program in the health sciences or social work	1 year	Part II	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
b.	Part II	Part I	1 year	Part III	May be considered for graduate admission.
c.	Part III	Part II	1½ years	Part IV	May be considered for admission to a doctoral program.

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d. Part IV	Part III	1 year	Doctoral studies	May be considered for admission to a doctoral program.
56. *Praktisk-pedagogisk eksamen* (Practical-pedagogical exam) also known as *pedagogisk utdanning* (teachers' training program) (pp. 60, 70)	*Cand. mag.* or equivalent	1 year as of fall 1992, previously 1 semester	Employment with teaching rank of *adjunkt*	Represents completion of undergraduate teacher education courses.
Engineering				
57. *Forkurs for ingeniørutdanning* (Preparatory course for engineering education) (p. 76)	*Vitnemål fra den videregående skolen*	1 year	*Ingeniør* program	May be considered for freshman admission.
58. *Datahøgskolekandidat* (Data college candidate) (p. 81)	University matriculation	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.
59. *Diplomkandidat* (Diploma candidate) (p. 81)	*Datahøgskolekandidat*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
60. *Programingeniør* (Program engineer) (pp. 77-78)	University matriculation	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.

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b.	Vocational/technical subjects (e.g., engine mechanic)	*Fagbrev* or *svennebrev* and 2 to 4 years of work experience	1 year as of fall 1992, previously 1 semester	Employment	Represents completion of undergraduate teacher education courses.
53.	*Hovedfagskandidat* (Main subject candidate), also known as *eksamen i hovedfag* (examination in a main subject) (p. 67)	*Cand. mag.* or equivalent	2 years	Employment or doctoral studies	May be considered for admission to a doctoral program.
54.	*Candidatus/a paedagogiae (cand. paed.)* (p. 70)	University matriculation	6½ or 7 years	Doctoral studies	May be considered for admission to a doctoral program.
55.	*Candidatus/a paedagogiae specialis (cand. paed. spec.)* (p. 71)				
a.	Part I	*Ex. phil.* plus 1 year of college or university study, or qualification as an *allmennlærer* or *førskolelærer*, or credential from a 3-year program in the health sciences or social work	1 year	Part II	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
b.	Part II	Part I	1 year	Part III	May be considered for graduate admission.
c.	Part III	Part II	1½ years	Part IV	May be considered for admission to a doctoral program.

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d. Part IV	Part III	1 year	Doctoral studies	May be considered for admission to a doctoral program.
56. *Praktisk-pedagogisk eksamen* (Practical-pedagogical exam) also known as *pedagogisk utdanning* (teachers' training program) (pp. 60, 70)	*Cand. mag.* or equivalent	1 year as of fall 1992, previously 1 semester	Employment with teaching rank of *adjunkt*	Represents completion of undergraduate teacher education courses.
Engineering				
57. *Forkurs for ingeniørutdanning* (Preparatory course for engineering education) (p. 76)	*Vitnemål fra den videregående skolen*	1 year	*Ingeniør* program	May be considered for freshman admission.
58. *Datahøgskolekandidat* (Data college candidate) (p. 81)	University matriculation	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.
59. *Diplomkandidat* (Diploma candidate) (p. 81)	*Datahøgskolekandidat*	1 year	Further tertiary education	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis.
60. *Programingeniør* (Program engineer) (pp. 77-78)	University matriculation	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.

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61.	*Ingeniør* (Engineer) (p. 76)				
a.	from 2-year program	*Vitnemål fra den videregående skolen* from a *teknisk fagskole* (technical school)	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
b.	from 3-year program	University matriculation	3 years	Further tertiary education	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
62.	*Sivilingeniør (siv. ing.)* (Civilian engineer) (pp. 56, 72, 77)	University matriculation	4½ or 5 years	Doctoral studies	May be considered for admission to a doctoral program.
63.	*Candidatus/a technicae* (Discontinued in 1987) (p. 52)	*Ingeniør* degree from a 3-year program in the same field	1½ years	*Sivilingeniør* studies at Høgskolesenteret i Rogaland	May be considered for up to 1½ years of undergraduate transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
Fine Arts					
	Art and Design				
64.	*Høgskolekandidat* (College candidate) awarded by Statens håndverks-og kunstindustriskole or Statens høgskole for kunsthåndverk og design (p. 82)	University matriculation	3 years	*Designkandidat* or *kunstfagkandidat* studies	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of this program, the syllabus should be reviewed carefully.

65. *Designkandidat* (Design candidate) (p. 82)	*Høgskolekandidat* in same area of study	1½ years	Employment	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
66. *Kunstfagkandidat* (Art candidate) (p. 82)	*Høgskolekandidat* in same area of study	1½ years	Employment	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
67. Completion of a program of study at a *kunstakademi* (art academy) (pp. 82, 83)	Portfolio, interview, and practical examination	4 or 4½ years	Employment	May be considered for graduate admission as are graduates of US schools of art.
Ballet and Dance				
68. *Vitnemål for etter . . . fullført studium ved danselinjen* (Certificate for [name of person] after completion of the full program in the dance line) (p. 83)	*Vitnemål fra grunnskole* and examination	3 years	Employment	Primarily a vocational qualification.
69. *Vitnemål for etter . . . fullført studium* (Certificate for [name of person] after completion of the full program) in *Pedagoglinjen* (Dance teachers' line) or *Koreografilinjen* (Choreographers' line) (pp. 83-84)	University matriculation	3 years	Employment	May be considered for undergraduate admission with transfer credit awarded on the same basis as for students of US schools of performing arts.

61.	*Ingeniør* (Engineer) (p. 76)				
a.	from 2-year program	*Vitnemål fra den videregående skolen* from a *teknisk fagskole* (technical school)	2 years	Further tertiary education	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
b.	from 3-year program	University matriculation	3 years	Further tertiary education	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
62.	*Sivilingeniør (siv. ing.)* (Civilian engineer) (pp. 56, 72, 77)	University matriculation	4½ or 5 years	Doctoral studies	May be considered for admission to a doctoral program.
63.	*Candidatus/a technicae* (Discontinued in 1987) (p. 52)	*Ingeniør* degree from a 3-year program in the same field	1½ years	*Sivilingeniør* studies at Høgskolesenteret i Rogaland	May be considered for up to 1½ years of undergraduate transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
Fine Arts					
	Art and Design				
64.	*Høgskolekandidat* (College candidate) awarded by Statens håndverks-og kunstindustriskole or Statens høgskole for kunsthåndverk og design (p. 82)	University matriculation	3 years	*Designkandidat* or *kunstfagkandidat* studies	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of this program, the syllabus should be reviewed carefully.

65. *Designkandidat* (Design candidate) (p. 82)	*Høgskolekandidat* in same area of study	1½ years	Employment	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
66. *Kunstfagkandidat* (Art candidate) (p. 82)	*Høgskolekandidat* in same area of study	1½ years	Employment	May be considered for graduate admission in a related field if the specialized nature of the program followed is appropriate preparation.
67. Completion of a program of study at a *kunstakademi* (art academy) (pp. 82, 83)	Portfolio, interview, and practical examination	4 or 4½ years	Employment	May be considered for graduate admission as are graduates of US schools of art.
Ballet and Dance				
68. *Vitnemål for etter . . . fullført studium ved danselinjen* (Certificate for [name of person] after completion of the full program in the dance line) (p. 83)	*Vitnemål fra grunnskole* and examination	3 years	Employment	Primarily a vocational qualification.
69. *Vitnemål for etter . . . fullført studium* (Certificate for [name of person] after completion of the full program) in *Pedagoglinjen* (Dance teachers' line) or *Koreografiinjen* (Choreographers' line) (pp. 83-84)	University matriculation	3 years	Employment	May be considered for undergraduate admission with transfer credit awarded on the same basis as for students of US schools of performing arts.

	Music				
70.	*Vitnemål* (Certificate) from a *musikkonservatorium* or the Statens Operahøgskole (p. 85)	University matriculation	2 or 3 years	Employment	May be considered for undergraduate admission with transfer credit awarded on the same basis as for students of US schools of music.
71.	*Kandidateksamen* (Candidate examination) (pp. 84, 85)	University matriculation	4 years	*Diplomeksamen* studies	May be considered for graduate admission as are graduates of US schools of music.
72.	*Diplomeksamen* (Diploma examination) (pp. 84, 85)	*Kandidateksamen*	2 years	Employment	May be considered for graduate admission as are graduates of US schools of music; may be considered for graduate transfer credit determined through a course-by-course analysis.
73.	*Candidatus/a musicae (cand. musicae)* (pp. 84-85)	*Cand. mag.*	2 years	Doctoral studies	May be considered for admission to a doctoral program.
	Theater				
74.	Certificate for completion of the Statens teaterhøgskole *skuespillerlinjen* (National College of Dramatic Art acting line) (p. 86)	*Vitnemål fra grunnskole*, examination, and minimum age of 17	3 years	Employment	Primarily a vocational qualification.
75.	Certificate for completion of the Statens teaterhøgskole *instruktørlinjen* (National College of Dramatic Art directing line) (p. 86)	University matriculation and minimum age of 20	3 years	Employment	May be considered for undergraduate admission with transfer credit awarded on the same basis as for students of US schools of performing arts.

Health Professions

Allied Health Sciences

76.	*Tolk* or *Døvetolk* (Sign-language interpreter) (p. 87)	University matriculation	1 year	Further tertiary education and employment	May be considered for undergraduate admission with up to 1 year of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
77.	*Audiograf* (Audiographer) (pp. 86-87)	University matriculation	2 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
78.	*Bioingeniør* (Bioengineer, also known as medical laboratory technologist); *Ergoterapeut* (Occupational therapist); *Fysioterapeut* (Physical therapist); *Mensendiecksyke-gymnaster* (Mensendieck physical therapist); *Ortopediingeniør* (Orthopedics engineer); *Radiograf* (Radiographer) (pp. 87-89)	University matriculation	3 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.

Dentistry and Dental Hygiene

79.	*Tannlegesekretærskolen* (Dental assistant school) credential (pp. 89-90)	*Vitnemål fra grunnskolen* and age 18	1 year	Employment	Primarily a vocational qualification.

80.	*Tannpleier* (Dental hygienist) (p. 89)	University matriculation	2 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
81.	*Candidatus/a odontologiae (cand. odont.)* (p. 90)	University matriculation	5 years	Doctoral studies	A first professional degree in dentistry; may be considered for graduate admission.
82.	Master of Science in dentistry (p. 90)	Professional degree in dentistry	2 years	Employment	May be considered comparable to a US master's degree.
83.	*Spesialist* (Specialist) in various dentistry fields (p. 90)	*Cand. odont.*	3 to 5 years	Employment	Represents completion of a specialization in dentistry.
84.	*Doctor odontologiae (dr. odont.)* See placement recommendation 24.				

Medicine

85.	*Candidatus/a medicinae (cand. med.)* (p. 90)	University matriculation	6 or 6½ years	Doctoral studies	A first professional degree in medicine; may be considered for graduate admission.
86.	Master of Philosophy in histopathology or Master of Philosophy in the medicine of developing countries (p. 91)	*Cand. mag.* degree for Norwegian students or bachelor's degree or equivalent for foreign students	2 years	Employment	May be considered comparable to a US master's degree.
87.	*Doctor medicinae (dr. med.)* See placement recommendation 24.				

Nursing

88.	*Sykepleier* or *sjukepleiar* (nurse) (p. 91)	University matriculation	3 years	Nursing specialization (*see* placement recommendation #89 below for specializations)	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
89.	Nursing specialization in *eldreomsorg* (geriatric care), *jordmor* (midwifery), or *psykiatrisk sykepleier* (psychiatric nursing) (p. 91)	*Sykepleier*	1 year	Employment	May be considered for up to 1 year of undergraduate transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
90.	Nursing specialization in *helseforebyggende og forebyggende arbeid* (public health and preventive medicine), *sykepleieadministrasjon* (nursing administration and management) (p. 91)	*Sykepleier*	1 semester	Employment	May be considered for up to 1 semester of undergraduate transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
91.	*Candidatus/a magisterii (cand. mag.)* in nursing science (p. 94)	*Sykepleier* plus 1 year of work experience as a nurse	1 year	*Cand. polit.* in nursing science	May be considered for graduate admission.
92.	*Candidatus/a rerum politicarum (cand. polit.)* in nursing science (p. 94)	*Cand. mag.* in nursing science	2 years	Doctoral studies	May be considered for admission to a doctoral program.

93.	*Candidatus/a i sykepleievitenskap* or *kandidat i sykepleievitenskap* (Candidate in nursing science) (p. 94)	*Sykepleier* and 1 year of work experience as a nurse	3 or 3½ years	*Embetseksamen i sykepleievitenskap med pedagogikk* (professional examination in nursing science and teaching) and doctoral studies	May be considered for admission to a doctoral program.
	Nutrition and Food Technology				
94.	*Forkurs* (Preparatory course) offered by the Statens næringsmiddeltekniske høgskole (p. 95)	*Vitnemål fra den videregående skole*	1 year	Study for the *vitnemål fra statens næringsmiddeltekniske høgskole*	May be considered for freshman admission.
95.	*Vitnemål fra statens næringsmiddeltekniske høgskole* (Certificate from The Norwegian State College of Food Technology) (p. 95)	University matriculation	3 years	Further tertiary education	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
96.	*Ernæringsfysiolog* (Nutritionist title) (pp. 94-95)	University matriculation	3½ years	*Cand. scient.* studies	May be considered for graduate admission.
	Pharmacy and Prescriptionist Education				
97.	*Reseptar* (Prescriptionist) (pp. 95-96)	University matriculation	2½ years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2½ years of transfer credit determined through a course-by-course analysis. Because of the specialized nature of the program, the syllabus should be reviewed carefully.
98.	*Candidatus/a pharmaciae (cand. pharm.)* (p. 95)	University matriculation	5 years	Doctoral studies	A first professional degree in pharmacy; may be considered for graduate admission.

Public Health

99. Diploma in Health Economics (p. 96)	Variable		6 months	Employment	Primarily a vocational qualification; admission and placement should be based on other credentials.
100. *Kandidat i folkehelsevitenskap* (Candidate in Public Health, also known as Master of Public Health) (p. 96)	a.	*Cand. mag.* degree for Norwegian students or bachelor's degree or equivalent for foreign students	1 year	Employment	May be considered comparable to a US master's degree.
	b.	*Cand. med.*	1 semester	Employment	May be considered for graduate transfer credit determined through a course-by-course analysis.
101. Master of Science in Health Promotion, also known as Master of Science in Preventive Health (p. 96)	*Cand. mag.* degree for Norwegian students or bachelor's degree or equivalent for foreign students		2 years	Employment	May be considered comparable to a US master's degree.

Veterinary Medicine

102. *Candidatus/a medicinae veterinariae (cand. med. vet)* (pp. 96-97)	University matriculation	5½ to 6 years	Doctoral studies	A first professional degree in veterinary medicine; may be considered for graduate admission.

103. *Doctor scientiarum (dr. scient.)* and *doctor medicinae veterinariae (dr. med. vet.)* See placement recommendations 24 and 25.

Hotel and Restaurant Management and Training

104. *Kjøkken-og restaurantledelse* (Food and beverage management) credential (p. 97)	*Fagbrev* (craft certificate) as cook or waiter and 2 years of work experience	1 year	Further education and employment	Primarily a vocational qualification.
105. *Høgskolekandidat* (College candidate) in *hotelladministrasjon* (hotel administration) or *reiselivsadaministrasjon* (tourism administration) (p. 97)	University matriculation, 2 years of relevant work experience, and completion of the 5-week *bransjeteoretisk forkurs* (preliminary course in hotel and restaurant theory)	2 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.
106. *Høgskolekandidat* (College candidate) in service management (p. 97)	*Høgskolekandidat* in hotel administration or tourism administration	1 year	Further tertiary education and employment	May be considered for 1 year of undergraduate transfer credit determined through a course-by-course analysis.
107. Master of Science in *internasjonal hotell- og reiselivsadministrasjon* (international hotel and tourism administration) (p. 97)	*Høgskolekandidat* in service management	1 year program at Cornell University or Florida International University (US) plus 1 year at Norsk hotellhøgskole	Employment	May be considered for graduate admission.
108. *Husøkonom* (Accommodation manager) (p. 98)	University matriculation	2 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.

109. *Kostøkonom* (Institutional catering manager) (p. 98)	University matriculation	2 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.
Journalism				
110. *Fageksamen i journalistikk* (Subject examination in journalism) (p. 98)	University matriculation	2 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 2 years of transfer credit determined through a course-by-course analysis.
Law				
111. *Candidatus/a juris (cand. juris)* (pp. 98-99)	University matriculation	5½ to 6 years	Doctoral studies	A first professional degree in law; may be considered for graduate admission.
Library Science				
112. *Bibliotekar* (Librarian) (p. 99)	University matriculation	3 years	Studies for *Diplom-bibliotekar i informasjonskunnskap og EDB* (*see* placement recommendation #113)	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
113. *Diplombibliotekar i informasjonskunnskap og EDB* (Diploma in library science and electronic data processing) (p. 99)	*Bibliotekar* credential or *cand. mag.*	2 years	Employment	May be considered for graduate admission.
114. *Vitnemål* (Certificate) for advanced library study (p. 99)	*Bibliotekar* credential	1 semester	Employment	May be considered for up to 1 semester of undergraduate transfer credit determined through a course-by-course analysis.

Military and Police Education

115. Basic officer training (Air Force, Army, Navy) (p. 100)	University matriculation	2 years	Further military education	A professional qualification; admission and placement should be based on other credentials.
116. *Luftkrigsskolen, 1. avdeling* (Air Force Academy, Part I) (p. 100)	Basic officer training	2 years	*Luftkrigsskolen, 2. avdeling*	Represents completion of a specialization in military science.
117. *Luftkrigsskolen, 2. avdeling* (Air Force Academy, Part II) (p. 100)	*Luftkrigsskolen, 1. avdeling*	2 years	Employment	Represents completion of a specialization in military science.
118. *Hærens Krigsskole 1. avdeling* (Army Academy, Part I) (p. 101)	Basic officer training	1 year	*Hærens Krigsskole, 2. avdeling* (Army Academy, Part II)	Represents completion of a specialization in military science.
119. *Hærens Krigsskole 2. avdeling* (Army Academy, Part II) (p. 101)	*Hærens Krigsskole, 1. avdeling*	2 years	Employment	Represents completion of a specialization in military science.
120. *Sjøkrigsskolen 1. avdeling* (Naval Academy, Part I) (p. 101)	Basic officer training	2 years	*Sjøkrigsskolen 2. avdeling*	Represents completion of a specialization in military science.
121. *Sjøkrigsskolen 2. avdeling* (Naval Academy, Part II) (p. 101)	*Sjøkrigsskolen 1. avdeling*	2 years	Employment	Represents completion of a specialization in military science.
122. Certificate from advanced staff school in one of the military branches (p. 101)	*Luftkrigsskolen, 2. avdeling; Hærens Krigsskole 2. avdeling; Sjøkrigsskolen 2. avdeling*	Variable	Advancement in military rank	A professional qualification; admission and placement should be based on other credentials.

123. *Høgskolekandidat i politi* (police studies) (p. 102)	After 1992, university matriculation	3 years; 2 years until 1992	Employment	Primarily a vocational qualification; admission and placement should be based on other credentials.
Physical Education and Sport				
124. *Faglærer* (Specialized subject teacher) in physical education or *trener* (coach/trainer) qualification (p. 102)	University matriculation	3 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
125. *Idrettskandidat* (Sports candidate) (p. 102)	University matriculation	6 years (or 2 years following *cand.mag.)*	Doctoral studies	May be considered for admission to a doctoral program.
Psychology				
126. *Candidatus/a psychologiae (cand. psychol.)* (pp. 102-103)	University matriculation	5 to 7 years	Doctoral studies	May be considered for admission to a doctoral program.
Sociology, Social Work, and Social Education Certificates (*Vitnemål*)				
127. *Barnevernspedagog* (Child welfare worker) (p. 104)	University matriculation	3 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
128. *Kommunalkandidateksamen* (Local government administration candidate) (p. 104)	University matriculation	3 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.

129. *Sosionom* (Social worker) (p. 104)	University matriculation	3 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
130. *Vernepleier* (Social educator) (p. 106)	University matriculation	3 years	Further tertiary education and employment	May be considered for undergraduate admission with up to 3 years of transfer credit determined through a course-by-course analysis.
131. *Candidatus/a socionomiae (cand. socion.)* (p. 103)	*Sosionom* or *barnevernspedagog* credential	2½ years	Doctoral studies	May be considered for admission to a doctoral program.
132. *Candidatus/a sociologiae (cand. sociol.)* (p. 103)	University matriculation	6 years	Doctoral studies	May be considered for admission to a doctoral program.

Teacher Training (*See* Education)

Theology

133. *Candidatus/a theologiae (cand. theol.)* (p. 107)	University matriculation	6 years	Doctoral studies	May be considered for admission to a doctoral program.

Appendix A

Trades in Which Apprenticeships Are Offered and the Length of Each Program

Akvakultur og fiskeindustri (aquaculture and fishing)	
Akvakultur, fagoperatør (aquaculture, skilled worker)	36 months
Fiskeindustri, fagoperatør (fishing industry, skilled worker)	136 months
Anleggsgartner (landscape gardening)	5600 hours
Anleggsmaskinfag (construction machine trades)	
Anleggsmaskinfører (construction machine operator)	3 years
Anleggsmaskinreparatør (construction machine mechanic)	3 years
Baker og konditor (baker and pastry chef)	
Baker (baker)	3 years
Konditor (pastrycook)	3 years
Bilfagene (motor trades)	
Reparatør av lette kjøretøy (auto mechanic, light vehicles)	4 years
Reparatør av tunge kjøretøy (auto mechanic, heavy vehicles)	4 years
Bilskadereparatør (motor mechanic)	4 years
Reservedelsfaget for bil (body repair)	3 years
Billakkerer (body painter)	3 years
Dekkreparatør (vehicle tire repair)	2 years
Vulkanisør (vulcanization)	2 years
Reparatør av motorsykkel (motor cycle mechanic)	36 months
Blomsterdekoratør (flower arranging)	3 years
Buntmaker (furrier)	4 years
Bygg-og anleggsfagene (construction and building trades)	
Armering (reinforcement)	5600 hours
Betongarbeid (concrete molding)	5600 hours
Forskaling (form work)	5600 hours
Grunnarbeid og anleggsteknisk arbeid (foundation and construction work)	5600 hours
Tunnel- og fjellarbeid (tunneling and rock blasting)	5600 hours
Byggtapetserer (paperhanging)	48 months
Børsemaker (gunsmith)	4 years
Duodji/Samisk *husflid* (Duodji, Sámi handicrafts)	3 years
Tekstilsøm (textile sewing), *veving* (weaving), *skinnsøm* (leather sewing), *skinnarbeid* (skin work), *trearbeid* (woodwork), *hornarbeid* (bone work), *metallarbeid* (metal work)	
Elektrofagene (electrical trades)	
Elektrisitetsverksmontør gr. A or gr. B (electricity distribution, Group A or Group B)	4 years
Svakstrømsmontør (electrician, communications)	4 years
Signalmontør (signals electrician)	4 years
Heismontør (elevator installation)	4 years
Elektroreparatør (electrician, repairs)	3 years
Elektromotor- og transformatorreparatør (repair of electric motors and transformers)	4 years
Elektromontør gr.1 (low-voltage electrician)	4 years
Telefonsentralmontør (telephone switchboard assembler)	4 years
Togelektriker (railway electrician)	
Energitekniker (electric power technician)	3 years
Elektrokjemisk og elektrometallurgisk industri, fagoperator (electrochemical and electrometal industry skilled operator)	3 years
Elektronikk og datafag (electronics trades)	
Produksjonselektroniker (production electronics)	3 years
Servicelektroniker (service electronics)	4 years

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- *Radio/tv reparatør* (radio and television repair) — 4 years
- *Radiomontør/kommunikasjon* (radio operator/communication) — 4 years
- *Radio service- og testmontør/kommunikasjon* (radio service and test operator) — 4 years
- *Telemontør* (telecommunications fitter) — 48 months

Feier (chimney sweep) — 3 years

Flyfagene (aircraft and avionics)

- *Flytekniske fag* (aircraft trades)
  - *Flysystemmekaniker* (aircraft mechanic, systems) — 5 years
  - *Flykomponentmekaniker* (aircraft mechanic, components) — 5 years
  - *Flymotormekaniker* (aircraft mechanic, engines) — 5 years
  - *Flystrukturmekaniker* (aircraft mechanic, airframes) — 5 years
  - *Flyinteriør- og utstyrsmekaniker* (aircraft mechanic, interior and equipment) — 5 years
- *Avionikkfag* (avionics trades)
  - *Systemavioniker* (avionics mechanic, systems) — 5 years
  - *Komponentavioniker* (avionics mechanic, components) — 5 years
  - *Instrumentavioniker* (avionics mechanic, instruments) — 5 years
  - *Radioavioniker* (avionics mechanic, radio) — 5 years
- *Elektromekanisk reparatør* (ground equipment mechanic) — 4 years

Fotografffagene (photography)

- *Reklamefotograf* (advertising photographer) — 3 years
- *Portrettfotograf* (portrait photographer) — 3 years

Frisørfagene (hairdressing)

- *Damefrisør* (women's hairdresser) — 3½ years
- *Herrefrisør* (men's hairdresser) — 3½ years
- *Dame- og herrefrisør* (men's and women's hairdresser) — 4 years
- *Parykkmaker* (wig maker) — 3 years

Glassfagene (glass making)

- *Glassfaget* (glasswork) — 5600 hours
- *Glassliper- og speilbelegger* (glass grinding and silvering) — 3 years
- *Blyglassmester* (master glazier in lead glass) — 3 years

Glasshåndverkerfagene (glass handicrafts)

- *Glassformer* (glassblowing and pressing) — 7400 hours
- *Videreforedler* (decorative processing) — 7400 hours

Grafiske fag (printing and related trades)

- *Bokbind* (bookbinding) — 3 years
- *Trykk* (printing) — 3½ years
- *Typografi* (typesetting) — 3½ years
- *Repromontasje* (assembling, plate-making) — 3½ years
- *Reproteknikk* (reproduction operators, camera and scanner) — 3½ years

Gravørfagene (engraving)

- *Sølvgravør* (silver engraving) — 4 years
- *Stålgravør* (steel engraving) — 4 years

Gullsmedfagene (goldsmiths)

- *Gullarbeider og fatter* (jeweller and stone setter) — 3 years
- *Hammerarbeider og korpusmontør* (hammering and assembly) — 3 years
- *Filigransarbeider* (filigree work) — 3 years
- *Sølvtrykker* (silver printer) — 3 years
- *Sølvsiselør* (silver spinner) — 3 years
- *Sølvemaljør* (silver enameler) — 3 years

Industriell trehusproduksjon (prefabricated wooden houses)

- *Komponent- og elementproduksjon* (precut component and element production) — 5600 hours
- *Seksjonproduksjon* (section production) — 5600 hours

Industritekstilfagene (industrial fibres, yarns, and fabrics)

- *Garnframstilling/spinning* (yarn-making and spinning) — 36 months
- *Veving* (weaving) — 36 months
- *Trikotasje* (knitwear) — 36 months
- *Farging, trykking og etterbehandling* (dyeing, printing, and finishing) — 36 months

Fiskeredskap (industrial textiles for use in fishing)	36 months
Industrisøm (industrial sewing)	36 months
Gradør (pattern grading)	36 months
Instrumentmakerfagene (instrument making)	
Matematisk/geodetisk instrumentmaker (mathematical/geodetic instruments)	4 V2 years
Nautisk instrumentmaker (nautical instruments)	4V2 years
Isolatør (insulation)	7400 hours
Jern- og stålframstilling (iron and steel production)	3 years
Keramisk former (ceramic craftsman)	3 years
Kjemisk prosessindustri, fagoperatør (chemical processing industry, skilled worker)	3 years
Kjemisk rensing (dry cleaning)	5600 hours
Kjemisk teknisk industri, driftsoperatør (manufacture or products from chemicals, skilled worker)	3 years
Kjole- og draktsyer (dressmaker)	36 months
Kjøttfag (butcher's trades)	
Slakter (butcher)	3 years
Pølsemaker (sausage maker)	3 years
Butikkslakter (shop butcher)	36 months
Kobber- og blikkslager (copper and tinsmiths)	7400 hours
Kokk og servitør (cooking and waiting)	3 years
Kokk (chef)	36 months
Servitør (waiter)	36 months
Kokk institusjonshushold (institutional chef)	3 years
Kostymemaker (theatrical costume-maker)	4 years
Kurvmaker (basket maker)	4 years
Maler (house painter)	48 months
Mekaniske og elektrotekniske fag i industrien (mechanical and electrical engineering industry)	
Automatiker (automation mechanic)	4 years
Automatiseringsmekaniker (automation assembly)	4 years
Automatiseringsmontør (instrumentation and control technician)	4 years
Industrimekaniker (industrial mechanic)	3 years
Finmekaniker (precision mechanic	3 years
Motormekaniker (engine mechanic)	3 years
Landbruksmaskinmekaniker (agricultural mechanic)	3 years
Anleggsmaskinmekaniker (construction machine mechanic)	3 years
Verktøymaker (toolmaker/press toolmaker)	3 years
Maskinarbeider (machinery)	3V2 years
Maskinarbeider/dreier (machinery, turner)	3V2 years
Maskinarbeider/freser (machinery, miller)	3V2 years
Maskinarbeider/sliper (machinery, grinder)	3V2 years
Platearbeider (sheet metal welder)	3 years
Sveiser (welder)	3 years
Smed (slack smith industry)	3 years
Vikler for motorer og generatorer (winding, motors, and generators)	3 years
Vikler for krafttransformatorer (winding, power transformers)	
Vikler/montør for transformatorer og spoler for regulering, styring og måling (winding/installation of transformers and regulating, controlling, and measuring coils)	3 years
Montør for krafttransformatorer (installation of power transformers)	3 years
Industrirørlegger (industrial plumbing)	3 years
Former/kjernemaker (molder and core-maker)	3 years
Modellsnekker (wood pattern making)	3 years
Snekker (carpenter in industry)	3 years
Instrumentmekaniker (instrument technician)	4 years
Tavlemontør (panel and switchboard assembler)	3 years
Plastmekaniker (plastics engineering, mechanic)	3 years

Trebåtbygger (wooden boat building)	3 years
Kuldemontør (refrigeration technician)	4 years
Aluminiumskonstruksjon (aluminum construction work)	3 years
Kabelbyggere (cable manufacture, skilled worker):	
Framstilling av ledere (manufacture of conductors)	36 months
Framstilling av isolasjonsmateriale (manufacture of insulation materials)	36 months
Isolering av leder (insulation of conductors)	36 months
Bygging av kabel (cable manufacture)	36 months
Kontrollfag (quality inspection)	
Dimensjonskontroll (measurement control)	3 years
NDT-kontroll, radiograf (NDT control, radiography)	3 years
NDT-kontroll, ultralyd (NDT control, ultrasonic)	3 years
NDT-kontroll, magnetpulver/ penetrant (NDT control, magnetic particle/liquid penetrant)	3 years
Karosserimaker (vehicle body builder)	3 years
Metallforming (metal forming)	
Valseverkproduksjon (rolled products)	36 months
Pressverkproduksjon (extrusions)	36 months
Modist (millinery)	4 years
Murer og gipsmaker (bricklaying and plastering)	
Murer (bricklayer)	7000 hours
Verksted-gipsmaker (workshop plasterer)	4 years
Gipspusser (plaster finishing)	4 years
Stukkmarmor-gipsmaker (stucco plasterer)	4 years
Næringsmiddelindustrien, fagoperator (food processing industry, skilled worker)	3 years
Overflatebehandlingsfagene (surface protection trades)	
Varmeforsinker (hot dip galvanizer)	3 years
Galvanisør (electrolytic coating applicator)	3 years
Maskin- of industrimaler (blast cleaner and industrial painter)	3 years
Termisk sprøyter (thermo-metal sprayer)	3 years
Plastformer (plastic molding)	3 years
Porteføljemaker (briefcase making)	4 years
Rørlegger, bygning (plumber)	7400 hours
Seilmaker (sail maker)	3 years
Skipsmekaniker (ship's mechanic)	3 years
Skomaker- og ortopedifagene (shoemaking and orthopaedic trades	
Skomaker (shoemaker)	2 years
Protesemontør (prosthesis fitter)	3 years
Ortopeditekniker (orthopaedic technician)	
Protesemontør (prostheses)	3 years
Ortopedinåtiler (orthopedic stitchery)	3 years
Ortopedisyer (orthopedic sewing)	3 years
Skredderfagene (tailoring)	
Dameskredder (women's tailoring)	3 years
Herreskredder (men's tailoring)	3 years
Smedfagene (smiths)	
Hovslager (farrier)	3 years
Vognsmed (carriagesmith)	4 years
Skipssmed (blacksmith, ship's fitting)	4 years
Bygningssmed (blacksmith)	4 years
Låssmed (locksmith)	4 years
Snekker (carpenter)	7000 hours
Snekker- og møbeltapetserfagene (carpentry, cabinetmaking and upholstering)	
Snekker (joiner)	5600 hours
Industrisnekker (industrial joiner)	5600 hours
Industritapetserer (industrial paperhanger)	5600 hours
Møbeltapetserer (furniture upholsterer)	5600 hours
Dreier/tredreier (turner, wood turner)	4 years
Treskjærer (woodcarving)	4 years
Salmakerfagene (sail makers' trades)	
Reiseffektmakerarbeid (luggage)	4 years

Seletøymakerarbeid (harness making)	4 years
Vogn- of bilsalmakerarbeid (car and carriage seating)	4 years
Orgelbygger (organ building)	7400 hours
Spon-fiberplate, fagoperatør (fiberboard, skilled operator)	36 months
Steinfagene (stone mason)	
Bruddvirksomhet (breakage work)	5600 hours
Montering (installation)	5600 hours
Bearbeiding (preparation)	5600 hours
Skiferindustri (slate industry)	5600 hours
Stillasbygger (scaffolding)	3 years
Taksidermist (taxidermist)	48 months
Taktekker (roofer)	36 months
Tanntekniker (dental technician)	4½ years
Treforedlingsindustrien, fagoperatør (pulp and paper industry, skilled operator)	36 months
Trelastfagene (timber production and sale)	
Skur- og høyellastproduksjon, fagoperatør (timber production, skilled operator)	5600 hours
Tørking og energiproduksjon, fagoperatør (kiln drying and energy production, skilled operator)	5600 hours
Verktøyhold, fagoperatør (tools in the sawmill industry, skilled operator)	5600 hours
Trelast og byggvarer, fagekspeditør (timber and building materials, skilled salesman)	5600 hours
Tømrer (carpentry)	7400 hours
Urmaker (watchmaking)	3 years
Yrkessjåfør tunge kjøretøy (driver, buses, trailers, trucks)	36 months

Source: Council for Apprenticeship Training for Working Life. *Fagopplæring i Arbeidslivet: Veien Fram til Fagbrev og Svennebrev* (*Apprenticeship Training for Working Life: The Road Ahead to a Vocational Certificate and Journeyman's Certificate*). August 1991.

Appendix B

Institutions in the Formal System of Higher Education

University Sector

Universities

1. Universitetet i Bergen (University of Bergen)
2. Universitetet i Oslo (University of Oslo)
3. Universitetet i Tromsø (University of Tromsø)
4. Universitetet i Trondheim (University of Trondheim)

Specialized University-Level Institutions

1. Arkitekthøgskolen i Oslo (Oslo School of Architecture)
2. Handelshøyskolen BI (Norwegian School of Management)-private
3. Norges handelshøyskole (Norwegian School of Economics and Business Administration)
4. Norges idrettshøgskole (Norwegian University of Physical Education and Sport)
5. Norges landbrukshøgskole (The Agricultural University of Norway)
6. Norges musikkhøgskole (Norwegian State Academy of Music)
7. Norges veterinærhøgskole (Norwegian College of Veterinary Medicine)
8. Det teologiske menighetsfakultet (Free Faculty of Theology)-private

College Sector

Public Colleges According to 1994 Reorganization

(New *høgskolen* are numbered; the colleges consolidated to form them are listed immediately below.)

1. Høgskolen i Agder (Agder College)
   - Agder distriktshøgskole (Agder Regional College)
   - Agder ingeniør- og distriktshøgskole (Agder Engineering and Regional College)
   - Agder musikkonservatorium (Agder Music Conservatory)
   - Arendal sykepleierhøgskole (Arendal College of Nursing)
   - Kristiansand lærerhøgskole (Kristiansand College of Education)
   - Kristiansand sykepleierhøgskole (Kristiansand College of Nursing)
2. Høgskolen i Akershus (Akershus College)
   - Oslo og Akershus vernepleierhøgskole (Oslo and Akershus Social Educator College)
   - Stabekk høgskole (Stabekk College)
   - Statens lærerhøgskole i forming (National College for Teachers of Arts and Crafts), Blaker
   - Sykepleierhøgskolen i Lørenskog (Lørenskog College of Nursing)
3. Høgskolen i Ålesund (Ålesund College)
   - Møre og Romsdal fiskeritekniske høgskole (Møre and Romsdal Fishery Technology College)
   - Møre og Romsdal ingeniørhøgskole (Møre and Romsdal Engineering College)
   - Sjukepleiarhøgskolen i Ålesund (Ålesund College of Nursing)
4. Høgkolen i Bergen (Bergen College)
   - Bergen helse- og sosialhøgskole (Bergen College of Social Work and Health Care Education)
   - Bergen ingeniørhøgskole (Bergen Engineering College)
   - Bergen lærerhøgskole (Bergen College of Education)
   - Bergen musikkonservatorium (Bergen Music Conservatory)
   - Fysioterapihøgskolen i Bergen (Bergen Physiotherapy College)
   - Haukeland helsefaghøgskole (Haukeland College of Health Care Education)
5. Høgskolen i Bodø (Bodø College)
   - Bodø lærerhøgskole (Bodø College of Education)
   - Høgskolesenteret i Nordland (Nordland College)
   - Nordland sykepleierhøgskole (Nordland College of Nursing)
6. Høgskolen i Buskerud (Buskerud College)
   - Drammen sykepleierhøgskole (Drammen College of Nursing)
   - Kongsberg ingeniørhøgskole (Kongsberg Engineering College)
   - Statens lærerhøgskole i handels- og kontorfag (National College for Teachers of Commercial Subjects)
7. Høgskolen i Finnmark (Finnmark College)
   - Alta lærerhøgskole (Alta College of Educa-

tion)
- Finnmark distriktshøgskole (Finnmark Regional College)
- Finnmark sykepleierhøgskole (Finnmark College of Nursing)

8. Høgskolen i Gjøvik (Gjøvik College)
   - Gjøvik ingeniørhøgskole (Gjøvik Engineering College)
   - Sykepleierhøgskolen i Oppland (Oppland College of Nursing)
9. Høgskolen i Harstad (Harstad College)
   - Høgskolen i Harstad (Harstad College)
10. Høgskolen i Hedmark (Hedmark College)
    - Elverum lærerhøgskole (Elverum College of Education)
    - Hamar lærerhøgskole (Hamar College of Education)
    - Hedmark distriktshøgskole (Hedmark Regional College)
    - Hedmark sykepleierhøgskole (Hedmark College of Nursing)
11. Høgskolen i Lillehammer (Lillehammer College)
    - Oppland distriktshøgskole (Oppland Regional College)
12. Høgskolen i Molde (Molde College)
    - Møre og Romsdal distriktshøgskole, Molde (Møre and Romsdal Regional College, Molde)
    - Sjukepleiarhøgskolen i Molde (Molde College of Nursing)
13. Høgskolen i Narvik (Narvik College)
    - Avdeling Narvik av Nordland sykepleierhøgskole (Narvik Department of Nordland College of Nursing)
    - Narvik ingeniørhøgskole (Narvik Engineering College)
14. Høgskolen i Nesna (Nesna College)
    - Nesna lærerhøgskole (Nesna College of Education)
15. Høgskolen i Nord-Trøndelag (North Trøndelag College)
    - Høgskolen i Levanger (Levanger College)
    - Innherred sykepleierhøgskole (Innherred College of Nursing)
    - Namdal sykepleierhøgskole (Namdal College of Nursing)
    - Nord-Trøndelag distriktshøgskole (North-Trøndelag Regional College)
16. Høgskolen i Oslo (Oslo College)
    - Aker sykepleierhøgskole (Aker College of Nursing)
    - Barnevernsakademiet i Oslo (Oslo Academy of Child Welfare)
    - Bislet høgskolesenter (Bislet College)
    - Norges kommunal- og sosialhøgskole (Norwegian State College of Local Government Administration and Social Work)
    - Norsk journalisthøgskole (Norwegian School of Journalism)
    - Oslo ingeniørhøgskole (Oslo Engineering College)
    - Østlandets musikkonservatorium (East Norwegian Conservatory of Music)
    - Statens bibliotek- og informasjonshøgskole (Norwegian School of Library and Information Science)
    - Statens lærerhøgskole i forming (National College for Teachers of Arts and Crafts), Oslo
    - Statens reseptarhøgskole (Norwegian School of Prescriptionists)
    - Statens sykepleierhøgskole (National College of Nursing)
    - Statens yrkespedagogiske høgskole (National College for Teachers of Vocational Subjects)
    - Ullevål sykepleierhøgskole (Ullevål College of Nursing)
17. Høgskolen i Østfold (Østfold College)
    - Halden lærerhøgskole (Halden College of Education)
    - Østfold distriktshøgskole (Østfold Regional College)
    - Østfold ingeniørhøgskole (Østfold Engineering College)
    - Østfold sykepleierhøgskole (Østfold College of Nursing)
    - Østfold vernepleierhøgskole (Østfold Social Educator College)
18. Høgskolen i Sogn og Fjordane (Sogn i Fjordane College)
    - Sogn og Fjordane sjukepleiarhøgskule (Sogn and Fjordane College of Nursing)
    - Sogn og Fjordane distriktshøgskole (Sogn and Fjordane Regional College)
    - Sogn og Fjordane ingeniørhøgskole (Sogn and Fjordane Engineering College)
    - Sogndal lærerhøgskole (Sogndal College of Education)
19. Høgskolen i Sør-Trøndelag (South Trøndelag College)
    - Sosialhøgskolen, Trondheim (Social Work College, Trondheim)
    - Statens næringsmiddeltekniske høgskole (Norwegian State College of Food Technology)
    - Sykepleierhøgskolen i Sør-Trøndelag (Sør-Trondelag College of Nursing)
    - Trondheim helsefaghøgskole (Trondheim

College of Health Care Education)
- Trondheim ingeniørhøgskole (Trondheim Engineering College)
- Trondheim lærerhøgskole (Trondheim College of Education)
- Trondheim økonomiske høgskole (Trondheim Economic College)
- Trøndelag musikkonservatorium (Trøndelag Music Conservatory)

20. Høgskolen i Stavanger (Stavanger College)
    - Høgskolesenteret i Rogaland (Rogaland College Center)
    - Norsk hotellhøgskole (Norwegian College of Hotel Management)
    - Rogaland musikkonservatorium (Rogaland Music Conservatory)
    - Sosialhøgskolen, Stavanger (Social Work College, Stavanger)
    - Stavanger lærerhøgskole (Stavanger College of Education)
    - Stavanger sykepleierhøgskole (Stavanger College of Nursing)
21. Høgskolen i Stord/Haugesund (Stord/Haugesund College)
    - Haugesund sykepleierhøgskole (Haugesund College of Nursing)
    - Statens sikkerhetshøgskole (National College of Safety Engineering)
    - Stord lærarhøgskole (Stord College of Education)
    - Stord sjukepleiarhøgskule (Stord College of Nursing)
22. Høgskole i Telemark (Telemark College)
    - Telemark distriktshøgskole (Telemark Regional College)
    - Telemark ingeniørhøgskole (Telemark Engineering College)
    - Telemark lærerhøgskole (Telemark College of Education)
    - Telemark sjukepleierhøgskule (Telemark College of Nursing)
23. Høgskolen i Tromsø (Tromsø College)
    - Nordnorsk musikkonservatorium (North Norwegian Conservatory of Music)
    - Tromsø helsefaghøgskole (Tromsø College of Health Care Education)
    - Tromsø lærerhøgskole (Tromsø College of Education)
    - Tromsø maritime høgskole (Tromsø Maritime College)
24. Høgskolen i Vestfold (Vestfold College)
    - Eik lærerhøgskole (Eik College of Education)
    - Høgskolesenteret i Vestfold (Vestfold College)
    - Vestfold sykepleierhøyskole (Vestfold College of Nursing)
25. Høgskolen i Volda (Volda College)
    - Møre og Romsdal distriktshøgskole, Volda (Møre and Romsdal Regional College, Volda)
    - Volda lærarhøgskole (Volda College of Education
26 Sámi Allaskuvla or Samisk Høgskole (Sámi College)
    - Samisk høgskole (Sámi College)

Institutions Offering Education in Art and Design

1. Kunstakademiet i Trondheim (Trondheim Academy of Fine Arts)
2. Statens kunstakademi (National Academy of Fine Arts), Oslo
3. Statens balletthøgskole (National College of Ballet and Dance)
4. Statens håndverks- og kunstindustriskole (National College of Art and Design)
5. Statens høgskole for kunsthåndverk og design (Bergen College of Art, Crafts and Design)
6. Statens operahøgskole (National College of Operatic Art)
7. Statens teaterhøgskole (National College of Dramatic Art)
8. Vestlandets kunstakademi (National Academy of Fine Arts), Bergen

Municipal College

1. Økonomisk College (Economics College), Oslo

Private Institutions with Government-Funded Programs Recognized by the National Coordinating Commission

1. Barrat Dues musikkinstitutt (Barrat Dues Conservatory of Music)
2. Betanien sykepleierhøgskole, Bergen (Betanian College of Nursing, Bergen)
3. Betanien sykepleierhøgskole, Oslo (Betanian College of Nursing, Oslo)
4. Den norske balletthøyskole (Norwegian College of Ballet)
5. Det teologiske menighetsfakultet (Free Faculty of Theology in Oslo)
6. Diakonhjemmets høyskolesenter (Deacons' House College Center)
7. Diakonissehjemmets sykepleierhøgskole, Ber-

gen (Deaconess' House College of Nursing, Bergen)
8. Diakonissehusets sykepleierhøgskole (Deaconess' House College of Nursing)
9. Dronning Mauds Minne, høgskole for førskolærerutdanning (Queen Maud's Memorial Foundation College of Education for Preschool Teachers)
10. Eurytmiskolen i Moss (Eurhythmics School in Moss)
11. Handelshøyskolen BI (Norwegian School of Management; also considered a specialized university-level institution)
12. Menighetssøsterhjemmets sykepleierhøgskole (Parish Sisters' Hospital College of Nurses)
13. Misjonshøgskolen (Mission College)
14. NKI datahøgskolen (NKI Data College)
15. NKI ingeniørhøgskolen (NKI Engineering College)
16. Norsk diakonihøyskole (Norwegian Deacon College)
17. Norsk lærerakademi (Norwegian Teachers' Academy)
18. Rogaland vernepleierhøgskole (Rogaland Social Educator College)
19. Rudolf Steinerhøyskolen (Rudolf Steiner College)
20. Varehandelens høyskole (Commodity Trading College)

Other Public/Private Institutions with NKU Fully/Partially Recognized Programs Not Government-Funded

1. Ansgarskolen (Ansgar School)
2. Bankakademiet (Bank Academy)
3. Baptistenes teologiske seminar (Baptist Theological Seminary)
4. Bergen arkitektskole (Bergen College of Architecture)
5. Bergen handelsgymnasium (Bergen Business School)
6. Diakonhjemmets teologisk-administrative høgskole (Theological-Administrative College of the Deacon Hospital)
7. Goethe-Institutt Lüneburg (Goethe Institute Luneburg)
8. Indremisjonsselskapets bibelskole i Oslo (Home Missions' Bible School)
9. Institutet for högre marknadsutbildning (IHM Business School)
10. Lærerutdanningsrådet (Teachers' Education Council)
11. Luthersk bibel- og menighetsseminar (Lutheran Bible and Congregational Seminary)
12. Metodistkirken (Methodist Church)
13. Misjonshøgskolen i Stavanger (Mission College in Stavanger)
14. NKI fjernundervisningen (NKI Distance Education)
15. NKS høgskole, Oslo (NKS College, Oslo)
16. Norges eksportskole (Norwegian Export School)
17. Norges handelshøyskoles kursvirksomhet (Norwegian School of Economics and Business Administration Extension Department)
18. Norges høyskole for informasjonsteknologi (Norwegian College for Information Technology)
19. Norges sykepleierhøyskole (Norwegian College of Nursing)
20. Norsk diakonihøyskole (Norwegian Deacon College)
21. Norsk informatikk institutt (Norwegian Informatics Institute)
22. Norske kirkes menighetshøgskole (Norwegian Congregational Church College)
23. Norsk Luthersk misjonssamband (Norwegian Lutheran Mission Society)
24. Norsk lærerakademi for kristendomskunnskap og pedagogikk (Norwegian Teachers' Academy for Christian Studies and Pedagogy)
25. Norsk rikskringkasting (Norwegian Broadcasting System)
26. Postverket (Postal Service)
27. Regionsykehuset i Trondheim (Trondheim Regional Hospital)-lab technician program
28. Riksarkivet (National Archives)
29. Rogaland markedshøyskole (Rogaland Marketing College)
30. Saksbehandlerhøyskolen (Court Proceedings College)
31. Skatteetatskolen i Oslo og Bergen (Taxation School in Oslo and Bergen)
32. Statens institutt for folkehelse (National Institute for Public Health)
33. Statens skole for husøkonomer (National School for Home Economics)
34. Statens skole for kostholdsøkonomer (National School for Meals Economics)

Norwegian-English Glossary

Alphabetization is without regard to diacritical marks, e.g., æ, ø, å. In the Norwegian alphabet, these letters are at the end of the alphabet.

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adjunkt adjunct
adjunktutdanning adjunct education
allmenne fag general studies
allmennlærer general subject teacher
allmenvitenskapelig arts and sciences
apotektekniker pharmacy technician
år year
arbeid work/occupation
arbeidslivsvitenskap industrial management
årsenhet one-year or full-year
audiografi audiography
avdeling department

barnehager day care centers or kindergartens
barnepleier nursery assistant
barneskole primary school
barnevern child welfare
barnevernsakademiet preschool teachers college
barnevernspedagog child welfare worker
bedriftsøkonom business economics
befalsskole officer candidate school
bestått passed
bibliotekar librarian
bioingeniør bioengineer or medical laboratory technologist
bokmål "book" Norwegian
byggfag building and commercial trades
bygningsingeniørfag civil engineering

dager days
dans dance
datafag computer science
datahøgskolekandidat data college candidate
datateknikk computer science
delfag partial subjects
deltatt participated
deltid part-time
designkandidat design candidate
diplomeksportøkonom diploma in export marketing
diplommarkedøkonom diploma in market economics
diplomøkonom diploma in economics
disputas defense of thesis
distriktshøgskole regional college
døvetolk sign-language interpreter

EDB electronic data processing
eiendomsmegler real estate broker
eksamen examination
eksamenskarakter grades from national examination
eldreomsorg geriatric nursing
elektrofag electrical trades
embetsstudier professional oriented degrees
emne topic
engelsk English
ergoterapi occupational therapy
ernæringsfysiolog nutritionist
etten one
ettårig one year
etterutdanning noncredit short courses

fag subject, trade
fagbrev vocational certificate
faglærer specialized subject teacher
fagområdet faculty
fagskole school, college
felles allmenne fag common core subjects
feltkurs field course
fisioterapeut physiotherapist
fiskerifag fishing trade subjects
fiskerikandidat fishery science candidate
fjernundervisning distance education
flygeskole flying school
fødselsnummer personal identification number
født (fødd) born
folkehelsevitenskap public health
folkehøgskole folk high school
forberedende prøve preparatory examination
foretaksøkonom enterprise economics
forkurs preliminary course, preparatory course
formgivingsfag arts, crafts, and design studies
forming arts and crafts
forskning research
førskolelærer preschool teacher
fotterapeut foot therapist
fremmedspråklige foreign language
fullført completed
fylke county
fysioterapeututdanning physical therapy education
fysioterapi physical therapy

gjennomsnitt average
godt good
grad degree
greidd passed

grunnfag	foundation subjects
grunnkurs	foundation course
grunnskole	basic school
grunnutdanning	basic education
Hæren	Norwegian army
halvårs	half year
halvsemesteremne	half-semester course
handel	commerce, trade
handels- og kontorfag	commercial and clerical subjects
håndverks- og industrifag	technical and industrial subjects
helsefag	health care subjects
helse- og miljøfag	health and environment studies
helse- og sosial fag	health and social studies
helsesekretær	health secretary
hjelpepleier	auxiliary nurse
hjelpepleierutdanning for voksne	auxiliary nurse course for adults
høgskole	college
høgskolekandidat	college candidate
høgskolesenteret	college center
hospitanter	part-time special students
høstsemester	autumn semester
hotell- og næringsmiddelfag	cooking, waiting, and food processing trades
hovedfag	main subject
hovedoppgave	thesis
høyere	higher
hudpleier	skin care consultant
husflids- og estetiske fag	crafts and aesthetic subjects
husholdningsfag	home economics subjects
husøkonom	accommodation management/manager
idrettsfag	physical education subjects
ikke	not
ikke godt	failure
ikke tilfredsstillende	failure
industrifag	industrial subjects
informasjonsvitenskap	information science
informatikk	informatics, computer science
ingeniør	engineer
ingeniørhøgskole	engineering college
innføring	introduction
jordmor	midwife
juridisk	law
karakter	mark, grade
kateket	catechist
kjemi- og prosessfag	chemical and processing trades
kombiert	combined
kommunal	local
kommunal- og sosialhøgskole	local government administration and social work college
kommunalkandidat	local government administration candidate
kostøkonom	institutional catering management/manager
krigsskole	army academy
kroppsøving	physical education
kunnskap	knowledge
kunstakademi	art academy
kunstfagkandidat	art candidate
kunstkandidat	art candidate
kurs	course
kursbevis	course certificate
kursvirksomhet	extension department
lærer	teacher
lærerhøgskole	college of education, teachers' college
lærlingskole	apprentices' school
landbruk	agriculture
landbruksfag- og naturfag	agricultural and rural subjects
ledelse	leadership
legesekretær	medical secretary
lektor	instructor
lite godt	barely passing
logopedi	speech therapy
Luftforsvaret	Royal Norwegian Air Force
Luftkrigsskolen	Air Force Academy
måned	month
markedskandidat	market candidate
maskinskrivning	typing
måtelig	barely passing
medier	media
meget godt	very good
meget tilfredsstillende	very good
mekaniske fag	engineering and mechanical trades
mellomfag	intermediate subjects
Mensendiecksykegymnast	Mensendieck physical therapist
Mensendieckutdanning	Mensendieck physical therapy education
Merknader	conj
miljø	environment
muntlig	oral
musikkonservatorium	music conservatory
næringsmiddeltekniske	food technology
naturbruk	agriculture, fishing, and forestry studies
naturfag	natural science
naturvitenskapelige	natural sciences
navn	name
noenlunde tilfredsstillende	passable

noksd godt	passable
nordisk	nordic
Norge	Norway
norsk	Norwegian
nynorsk	new Norwegian
odontologiske	dentistry
offentleg	public
og greidd	and passed
og bestått	and passed
økonomisk	economics
områder	divisions
oppgave	project
ortopediingeniør	orthopedic engineer
påbyggingsstudium	supplementary study
påbygningskurs	supplementary course
pedagogikk	pedagogy, education
pedagogisk høgskole	college of education, teachers' college
personnummer	personal number (ID)
pleie- og omsorgsfag	nursing and care assistant course
praksisforskrifter	practical training regulations
praktisk	practical
prøveform	examination form
prøver	examination, test
radiograf	radiographer
realfag	science
reiselivsadministrasjon	tourism administration
reseptar	prescription
revisor	auditor/accountant
rikskringkasting	broadcasting
saerdelestilfredsstillende	excellent
særs godt	excellent
saksbehandling	case work
samfunnsvitenskap	social science
semesteremne	semester course
sivilarkitekt	architect
sivilingeniør	civilian engineer, engineer
sivilmarkedsfører	marketing
siviløkonom	business economist
sjøfartsfag	maritime subjects
Sjøforsvaret	Royal Norwegian Navy
Sjøkrigsskolen	naval academy
sjukepleiar	nurse
skole	school
skriftlig	written
sosialhøgskole	social work college
sosial- og helsefag	social studies and health subjects
sosionom	social worker
spesialiseringskurs	specialization course
spesiallærer	special education teacher
spesialpedagogikk	special education
sprdk	language
stabsskole	staff school
standpunktkarakter	grade in the school
statens	national
statlige	national
statsautorisert	authorized
storfag	major subject
studieretning	area of study
studieretningsfag	area of study subjects
studium	study
svennebrev	journeyman's certificate, or trade skills certificate
svenneprøve	journeyman's examination, or trade skills examination
sykepleier	nurse
sykepleierhøgskole	nursing college
sykepleievitenskap	nursing science
tannpleier	dental hygienist
tanntekniker	dental assistant
tekniker	technician
teknisk fagskole	technical school
tekniske byggfag	service and technical building trades
tilfredsstillende	satisfactory
timer	hours
to	two
tolk	sign-language interpreter
trearbeidsfag	carpentry
turnustjeneste	internship
uketimer	hours per week
undervisning	teaching
ungdomsskole	lower secondary school
utdanning	education
valgfag	optional subjects
valgfritt	optional
vekttall	credit
vernepleier	social educator
vernepleierhøgskole	social educator college
videregående kurs	advance course
videregående skole	upper secondary school
videreutdanning	further education
vitnemål	certificate
vårsemester	spring semester
yrkesskole	trade school
yrkeslærer	vocational subject teacher

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Index

academic calendar, 5, 26, 87
academies of fine arts, 82-83
adjunkt, 62, 65, 70, 71, 72, 73
administrasjon for helse- og sosialsektoren, 111
admission. *See* specific programs
advanced course, 9, 11, 121-122, 123, 124. *See also* specific programs
advokat, 99
Agricultural University of Norway, 1, 27, 29, 36, 38, 56, 77, 114
agriculture: secondary, 8, 18, 19, 123; tertiary, 36, 37, 56, 114, 126, 127
allied health sciences, 86-89; institutions, 88
allmenne fag, 6, 8, 9-10, 11, 12, 22, 116
allmennlærer, 45, 49, 50, 65, 66-67, 68, 130
Ansgarskolen, Det norske misjonsforbund, 108-109
apprenticeship, 6, 21, 22, 23, 24, 73, 124
architecture, 29, 37, 57, 127
Arkitekthøgskolen i Oslo, 29, 57
Army, 101
art and design, 13, 82, 130, 133-134
audiography, 49, 86-87, 136
Auditor, Registered, 85, 128

Bachelor of: Business Administration, 59, 60; International Business, 55; Management, 58
ballet and dance, 13, 14, 66, 67, 68, 69-70, 83-84, 122, 134
Bankakademiet, 65
Baptistenes teologiske seminar, 109
barnepleier, 20
barneskole, 3
barnevernspedagog, 105, 144
Barrat Dues musikkinstitutt, 66, 85
bedriftsøkonom, *63*
bedriftsøkonomeksamen, 57, 58, 62, 64, 127
Bergen arkitektskole, 57
bibliotekar, 99, 142
BI høyskolene, 64
bioengineering, 49, 50, 80, 86, 87, 88, 136
Bislet College, 50, 87, 88, 89
Bislet høgskolesenter, 50, 87, 88, 89
Bodø College, 50, 59
Bodø Graduate School of Business, 50, 59, 61
business and economics, 50, 52, 57-65, 66, 68, 96, 111, 115, 127-130; grading, 63, 64; programs, 57-61. *See also marketing credentials* and other specific credentials
business college, 28
Business College of Northern Norway, 50-51, 59, 117

candidat i teologien, 108
candidatus/candidata (professionally oriented): *agricultura*, 37, 40, 56, 126; *juris*, 37, 40, 98, 99, 142; *medicinae*, 37, 40, 90, 137; *medicinae veterinariae*, 37, 40, 96-97, 140; *musicae*, 37, 40, 84-85, 135; *odontologiae*, 37, 40, 90, 137; *oeconomiae*, 35, 37, 40, 60, 62, 129; *paedagogiae*, 37, 40, 65, 70, 131; *paedagogiae specialis*, 37, 40, 71, 131-132; *pharmaciae*, 37, 40, 95, 139; *psychologiae*, 37, 40, 102-103, 144; *sanitatis*, 41, 94; *sociologiae*, 37, 40, 103, 145; *socionomiae*, 44, 103, 145; *sykepleievitenskap*, 94, 139; *theologiae*, 37, 40, 106, 107-108, 145. *See also idrettskandidat*, *sivilarkitekt*, *sivilingeniør*, *siviløkonom*, and specific institutions and programs
candidatus/candidata (arts and sciences): *philologiae*, 35, 40, 106-107, 125; *realium*, 35; *rerum politicarum*, 35, 40, 48, 60, 62, 94, 103, 125, 138, 139; *scientiarum*, 35, 40, 72, 73, 76, 77, 78, 79, 89, 95, 125. *See also* specific institutions and programs
candidatus/candidata magisterii, 31, 32-34, 35, 37, 40, 45, 46, 48, 60, 62, 76, 77, 84, 85, 94, 95, 96, 99, 102, 104, 108, 116, 125. *See also* specific institutions and programs
candidatus/candidata magisterii (regional), 27, 29, 30, 45, 46, 48, 53, 76, 77, 81, 89, 91, 95, 98, 106, 116, 125. *See also candidatus/candidata magisterii*
candidatus mercaturae, 117
candidatus technicae, 52, 133
child welfare education, 103-104
College of Education, 37, 50, 51, 65-71, 72, 73; list of, 68-69
College of Nursing, 92-93
colleges, private sector. *See private education*
colleges, public sector, 28, 29, 45-57, 83-84, 95, 97-98, 116-117; grading, 46; professional qualifications, 49. *See also* specific institutions and programs
Commodity Trading College, 67
Community of European Management Schools, 61
compulsory education, 3, 5
correspondence education, 78, 79, 81, 99, 111-112
credit units, 32, 116. *See also* institutional profiles
curriculum. *See* specific programs and levels of education

dansediplom, 84
datahøgskolekandidat, 49, 81, 132
degrees, advanced university, 33-35, 40, 48, 76-77. *See also* institutional profiles and specific programs
degrees, college, 48, 116
degrees, professionally oriented, 35, 37, 40, 56, 72, 76-77. *See also* institutional profiles and specific programs
Den norske balletthøyskole, 66, 83, 84
dental assistant, 20, 89-90, 136
dental hygiene, 89, 136, 137
dentistry, 20, 37, 90, 115, 137
designkandidat, 49, 82, 134
Det norske universitetsråd, 28
Det praktisk-teologiske seminar, 107, 108
Det teologiske fakultet, 106-107
Det teologiske menighetsfakultet, 29, 106, 107-108
Diakonhjemmets teologisk-administrative høgskole, 109
diplom, 32
diplombibliotekar i informasjonskunnskap og EDB, 99, 142
diplomeksamen, 84, 85, 135
diplomkandidat, 81, 132
diplommarked/førerprogram, 64
diplommarkedsøkonom, 58, 62, 128
diplomøkonom, 58, 59, 62, 63-64, 128
diplomøkonom reiseliv, 64
Diploma in Health Economics, 43, 96, 140
Diploma in Social Anthropology, 41
Diploma of Public Administration Candidate, 104
dissertation, 36
distance education, 64, 78, 79, 81, 96
distriktshøgskole, 27, 28, 46, 56, 57, 58, 103, 104, 105, 106; college programs, 50-52, 54-55; list of, 53-55. *See also* specific fields of study
doctor, 36, 40, 126. *See also* specific programs and institutional profiles

doctor ("new" type): *artium*, 39, 107, 108, 126; *ingeniør*, 39, 73, 76, 126; *juris*, 39, 99, 126; *legis.*, 39, 126; *medicinae*, 39, 90, 126; *odontologiae*, 39, 90, 126; *oeconomiae* and ABD program, 39, 61; *psychologiae*, 39, 103, 126; *rerum politicarum*, 39, 126; *scientiarum*, 56, 70, 73, 76, 95, 97, 102, 126, 140; *theologiae*, 39, 107, 126
doctor ("traditional" type): *agricolae*, 36, 46, 126; *medicinae veterinariae*, 36, 97; *philosophiae*, 36, 76, 99; *technicae*, 78, 126
Doctor of Philosophy (Danish), 51
drama, 14, 17, 86, 123, 124, 135,

education, teacher training, 65-71, 130-132. *See also* specific levels and types of teachers
education, handicapped, 69, 71, 102, 106, 131
eiendomsmegler, 57, 62, 64, 127
eksamen i hovedfag, 35, 67, 98, 125, 131
eldreomsorg, 91, 92, 93, 138
embetseksamen i sykepleievitenskap med pedagogikk, 94
embetsstudier, 35, 37
engineering, 27, 28, 52, 71-82, 87, 101, 132-133; grading, 72; institutions, 76, 78, 80; structure of, 73
English, compulsory study of, 2, 12
English programs, 22, 61, 96, 113, 114, 115
ERASMUS, 41, 113
ergoterapeut, 89, 136
ernæringsfysiolog, 94-95, 139
European Engineering, 76-77
Eurytmiskolen i Moss, 86
examen artium, 5, 6
examen oeconomiae, 35, 42, 60, 129
examen philosophicum, 32, 33, 94, 124
examination, secondary, 6, 7; apprenticeship, 21-22; university, 27, 33-34, 35

faculties, university, 29, 32, 34, 35, 36, 43. *See also* institutional profiles
fagbrev, 10, 18, 21, 124
fageksamen i journalistikk, 98, 142
faglærer, 66, 67, 68, 69-70, 72, 84, 98, 102, 124, 130
financial aid, 26, 112, 113-114
finansanalytiker studiet, 63, 130
Finnmark distriktshøgskole, 105, 109
fisheries education, 43, 81, 115. *See also maritime education*
fishing trade, 8, 10, 50, 122
fiskerikandidat, 43-44, 81
Fjellhaug skoler, 109
folkehøgskole, 6, 112, 115
folkeuniversitet, 112
forretningsøkonom, 57, 62, 127
food technology, 28, 49, 95, 139
forkurs, 76, 78, 79, 81, 95, 111, 132, 139
førskolelærer, 65, 130
foundation course, 6, 8-9, 11, 13, 23. *See also* specific fields of study
fysioterapeutlinjen, 87

grading, 3, 6, 7; tertiary, 32, 46, 56, 63, 64, 72, 90, 97, 99, 102, 107, 116. *See also* specific levels of education and programs
grunnskole, 3, 4, 6, 11, 73
grunnfag, 32, 33, 37, 45, 82, 106, 109, 110. *See also* specific programs
grunnutdanning, 45
haksemesteremne, 32, 34, 37
handelsøkonom, 60, 62, 64,129
Handelshøyskolen BI, 29, 36, 38, 58, 59, 60, 61, 62, 63, 65, 66
Handelshøyskolen Oslo, 60, 63, 64
handels- og kontorfag, 6, 8, 10, 14, 15, 16, 17, 66, 116, 122
håndverks- og industrifag, 8, 10, 12-13, 15, 16, 17, 122
Hærens Krigsskole 1., 2. avdeling, 101, 143
health care administration, 91
helsefaghøgskole, Haukeland, 88, 89, 92
helsefaghøgskole, Tromsø, 88, 89, 93
helsefaghøgskole, Trondheim, 86-87, 88, 105
helsefremmende og forebyggende arbeid, 91, 138
høgskolekandidat, 45, 46, 47, 50-53, 54, 58, 62, 82, 111, 125, 127, 141
Høgskolekandidat i politi, 102, 144
Høgskolekandidat i hotelladministrasjon, 97, 141
Høgskolekandidat i journalistikk, 98
Høgskolekandidat i reiselivsadministrasjon, 97, 141
Høgskolekandidat in service management, 97, 141
Høgskolen, 50, 52, 54, 59, 78, 105
høgskoler, 28
høgskolesenter, 28, 46, 48, 89
Høgskolesenteret i Nordland, 48, 50-51, 59, 60, 62, 98, 105, 117
Høgskolesenteret i Rogaland, 51-52, 72, 74, 77-78, 79, 80, 117
Høgskolesenteret i Vestfold, 52-53
hotel training, 97
hovedfag, 35, 48, 67, 68, 69, 102, 103, 108, 116-117
hovedfagseksamen i spesialpedagogikk, 71
hovedfagskandidat, 67, 68, 69, 98, 125, 131
høyere revisorstudium, 58-59, 62, 128
høyskolekandidat, 57
husflids- og estetiske fag, 8, 13-14, 122
husholdningsfag, 8, 17-18, 123
husøkonom, 98, 141

idrettsfag, 8, 18, 123
idrettskandidat, 37, 40, 102, 144
IHM Business School, 65
Indremisjonsselskapets bibelskole i Oslo, 86, 109
ingeniør, 45, 71-72, 73, 76, 80, 81, 82, 133
ingeniørhøgskolene, 27, 28, 52, 73, 74, 76, 77, 78-79, 80, 81, 88, 101, 111
Institutt for spesialpedagogikk, 41, 70, 71, 87, 88
Institutt for sykepleievitenskap, 91, 94
International Baccalaureate, 22
interpreter's education for the hearing impaired, 87, 136

jordmor, 91, 92, 93, 138
journalism, 27, 28, 98, 142
juridisk embetseksamen, 98

kandidat i folkehelsevitenskap, 38, 43, 96, 140
kandidat i sykepleievitenskap, 43, 94, 139
kandidatseksamen, 84, 85, 135
kjøkken-og restaurantledelse, 97, 141
kommunalkandidat, 49, 145

kommunal- og sosialhøgskolene, 27, 104, 105
kostøkonom, 98, 142
Kristiansand kommunal musikkskole, 86
kunstfagkandidat, 49, 82, 134
Kunstakademiet i Trondheim, 83

lærlingskole, 21
lærer, 65, 71
lærerhøgskole. *See College of Education*
landbruks- og naturfag, 8, 18, 123
language of instruction, 2, 22, 36
law, 37, 98-99, 142
ledelse for helse- og sosialsektorn, 111
ledelse og administrasjon for helse- og sosialsektorn, 111
legislation, 5-6, 21, 26, 27, 28, 65, 66
lektor, 65, 67, 69, 71, 98
library science, 28, 49, 99, 142
licentiate, 36, 126
licentiate odontologiae, 41, 90
lower secondary school, 3
Luftkrigsskolen, 99-101
Luftkrigsskolen, 1., 2. avdeling, 100, 143
Luthersk bibel- og menighetsseminar, 109

magister artium, 35, 40, 42, 44, 125
Maharishi International University, 38
maritime education, 12, 18, 81, 123-124
maritime engineering, 28, 76, 78, 80, 81
marketing credentials: *diplomeksportøkonom*, 58, 128; *diplommarkedsøkonom*, 59, 128; *markedskandidat*, 57-58, 127; *sivilmarkedsfører*, 60, 62, 64, 111, 128
master's degrees, 36, 38, 40, 115, 126. *See also* institutional profiles
Master of Arts in Society, Science and Technology, 38, 42, 126
Master of Business Administration, 38, 61, 63, 64, 129
Master of International Business, 38, 60-61, 126, 129
Master of Management, 59, 128
Master of Philosophy in: Fish Resources and Fishery Management, 38; History, 38, 41; Histopathology, 38, 41, 137; Medicine of Developing Countries, 38, 41, 91, 137; Public Administration, 41; Social Anthropology, 41; Special Education, 38, 42
Master of Public Health, 38, 43, 96, 140
Master of Science, 38, 61, 63, 90, 97, 129
Master of Science in: Business, 51, 59; Dentistry, 38, 41, 42, 90, 131; Environmental Engineering, 41; Health Promotion, 38, 41, 96, 140; Hydropower Development, 38, 45; Management of Natural Resources and Sustainable Agriculture, 38, 56; Marine Technology, 45, 60, 64; Marketing, 60, 62, 64; Petroleum Exploration, 38, 45; Preventive Health, 96; Solid Earth Physics, 41; Technology Management, 45
Master of Theology, 108
Masterstudium i internasjonal hotell- og reiselivsadministrasjon, 97, 141
mathematics and natural sciences, 35
mathematics, secondary, 9-10
matriculation, 7-8
medical laboratory technology. *See bioengineering*
medicine, 8, 37, 90-91, 126, 137
mellomfag, 32, 33-34, 37, 45, 109, 110. *See also* specific programs
Menighetsbibelskolen, 109
menighetssekretær, 110
Mensendieck physical therapy, 50, 86, 87, 88, 89, 136
mesterbrev, 22
military education, 100-101, 143-144
Ministry of Education, Research and Church Affairs, 3, 5, 26, 27, 28, 36, 65
Misjonshøgskolen, 106, 108
Møre og Romsdal fiskeriteknisk høgskole, 81
music, secondary, 13-14, 123; teacher training, 66, 68, 130; tertiary, 28, 37, 84-86, 109, 115, 135
musikkonservatoriene, 85-86
Musikkonservatoriet i: Oslo, 86; Tromsø, 86

næringsmiddeltekniske høgskole, 28
næringsmiddelteknolog, 95
Narvik ingeniørhøgskole, 72, 77, 78, 80
Nasjonalt Koordienerende Utvalg, 27, 28, 85, 117
National College for Teachers of Commercial Subjects, 68, 71
National College for Teachers of Vocational Subjects, 67, 69, 71, 72
National Coordinating Commision, 27, 28, 85, 117
NKI College of Engineering, 78, 79, 80, 81
NKI datahøgskolen, 67, 81
NKI fjernundervisningen, 67, 111
NKI ingeniørhøgskolen, 78-79, 80, 81, 111
NKS Foundation for Distance Education, 111
NKU. *See National Coordinating Commission*
nonuniversity tertiary education, 27
Nordic Association of University Administrators, 113
Nordic Council, 113
Nordic Council of Ministers, 113
Nordic School of Nutritional and Textile Sciences, 41
Nordisk husholdshøgskole, 94
Nordland College, 48, 50, 59, 60, 62
Nordnorsk balletthøgskole, 83
NORDPLUS, 41, 113
Norges handelshøyskole, 29, 36, 38, 59, 60, 61, 62, 63, 65, 67, 117
Norges handelshøyskoles kursvirksomhet, 63
Norges høyskole for informasjonsteknologi, 67
Norges idrettshøgskole, 29, 66, 70, 102
Norges journalisthøgskole, 27, 98
Norges kommunal-og sosialhøgskole,103, 104, 105
Norges landbrukshøgskole, 27, 29, 36, 38, 56
Norges musikkhøgskole, 14, 27, 29, 66, 70, 84, 85
Norges sykepleierhøyskole, 91
Norges tekniske høgskole, 44, 72, 74, 75, 76, 77
Norges veterinærhøgskole, 27, 29, 96
Norsk diakonihøyskole, 110
Norsk hotellhøyskole, 97
Norsk lærakademi for kristendomskunnskap og pedagogikk, 110
Norsk riksringkasting, 77-78
Norwegian Association of Adult Education, 111-112
Norwegian College of: Ballet, 68; Fishery Science, 43, 60; Journalism, 27; Veterinary Medicine, 1, 27, 29, 114
Norwegian Council of Universities, 27, 28
Norwegian Institute for Special Education, 71, 73, 87

Norwegian Institute of Technology, 44-45, 57, 72, 74, 75, 76, 77
Norwegian School of Economics and Business Administration, 38, 57, 59, 61, 63, 65
Norwegian School of Library and Information Science, 27, 99
Norwegian School of Management, 29, 36, 38, 57, 61, 63-65
Norwegian School of Marketing, 63, 64
Norwegian State Academy of Music, 14, 27, 29, 68, 72, 84
Norwegian State College of Food Technology, 95
Norwegian State College of Journalism, 27
Norwegian State College of Local Government Administration and Social Work, 27, 104, 105
Norwegian University of Physical Education and Sport, 29, 66, 70, 102
nursery assistant, 20
nursing, 20, 27, 28, 49, 91-94, 138-139
nursing colleges, 92
nutrition, 94-95, 139

occupational health, 91
occupational therapy, 50, 86, 87, 88, 136
økonomi og ledelse, 111
Økonomisk College, 28, 46, 53, 54-55
orthotics and prosthetics, 49, 50, 88, 89, 136
ortopediingeniør, 89
Oslo College, 50
Oslo College of Business and Economics, 53, 54-55
Oslo College of Education, 50
Oslo og Akershus vernepleierhøgskole, 105
Oslo School of Architecture, 29, 57
Østlandets musikkonservatorium, 68

påbygningskurs, 9, 11, 13, 18, 19, 20
påbyggingstudium, 46, 48, 58, 82
pedagogical colleges. *See College of Education*
pedagogiske høgskolene, 27, 28, 67
pedagogiske utdanning, 60
pharmacy, 20, 28, 95, 97, 139
physical education and sport, 37, 66, 70, 102, 144
physical education, secondary, 8, 18, 123; teacher training, 66, 67, 70
physical therapy, 28, 49, 50, 86, 87-89, 136
physiochemistry. *See medical laboratory technology*,
physics, secondary, 10
police education, 101-102, 144
Polithøgskolen, 101-102
Praktisk-pedagogisk eksamen, 56, 70, 85, 132. *See also* specific programs and institutional profiles
preschool education, 1-2, 3; teacher training, 28, 65-66, 67, 85, 130
PRIDE, 63, 129
primary education, 3, 121; teacher training, 65, 67, 70, 85
private education, 22, 26, 27, 28, 29, 63-65, 68-69, 82, 84, 85-86, 109, 111
professional qualifications, 28, 35, 37, 40
programingeniør, 77-78, 132
prosthetics and orthotics, 50, 86, 89, 136
psychology, 37, 102-103, 144
psykiatrisk sykepleier, 91, 92, 93, 138
public health, 96, 140

radiography, 49, 50, 86, 88, 89, 136
reform, 1994, 5-6, 9, 21, 28, 48
Regional Business Colleges, 64
regional colleges, 28, 29, 30, 46, 48, 53, 55, 59, 98
regionale høgskoler. See regional colleges
reseptar, 49, 95-96, 139
reseptarhøgskole, 28
revisoreksamen, 58, 128
Rogaland College, 51, 78
Rogaland markedshøyskole, 67
Rogaland vernepleierhøgskole, 105
Rudolf Steiner College, 70

Sámi, 1, 2
Sámi allaskuvla, 70
Sámi College, 70
secondary education, upper, 5-25, 73, 116; foundation courses, 8-10, 11-13, 18-20, 90; grading, 8
semester course, 32, 34
Senter for fjernundervisning, 81, 111
sivilarkitekt, 37, 40, 57, 127
sivilingeniør, 37, 40, 46, 48, 52, 56, 72, 73, 74, 76, 77, 127, 133
siviløkonom, 37, 40, 46, 48, 51, 59-60, 61, 62, 64, 65, 66, 72, 128
sjøfartsfag, 8, 18, 81, 123-124
Sjøkrigsskolen, 101
Sjøkrigsskolen 1., 2 avdeling, 101, 143
sjukepleiar, 91, 138
social and health studies, secondary, 8, 18-19, 20
social education, 49, 92, 93, 106, 145
social sciences, 38, 51, 52
social work, 28, 46, 49, 88, 91, 103-106, 109, 116, 145
sociology, 37, 103
sosialhøgskolen: Stavanger, 104, 105, 106; Trondheim, 105
sosial- og helsefag, 8, 18, 19, 20, 86-89, 124
special education teachers, 72, 73, 131
specialized subjects teachers, 68, 69, 71-72, 73, 130
specialization courses, 18
spesialist, 90, 137
spesiallærer, 49, 70
Stabekk høgskole, 70, 97-98
Stabsskolen 1., 2. avdeling, 101-102, 143
Statens balletthøgskole, 66, 83-84
Statens bibliotek- og informasjonshøgskole, 27, 99
Statens håndverks- og kunstindustriskole, 82
Statens høgskole forkunsthandverk og design, 82
Statens kunstakademi, 82-83
Statens lærerhøgskole i handels- og kontorfag, 71
Statens næringsmiddeltekniske høgskole, 95
Statens operahøgskole, 68, 70, 84, 85
Statens reseptarhøgskole, 95-96
Statens sikkerhetshøgskole, 78, 80, 81-82
Statens spesiallærerhøgskole, 71, 73, 87
Statens teaterhøgskole, 66, 68, 86
Statens yrkespedagogiske høgskole, 67, 69
statlig helsefaghøgskoler, 86-87, 88, 89
Stavanger College, 51
storfag, 32, 34, 37
studieplan, 116
supplemental studies, 46, 48
supplementary course, 9, 11, 18, 19, 20

svennebrev, 21-22, 124
sykepleieadministrasjon, 91, 138
sykepleier, 45, 49, 91, 138
sykepleierhøgskole, 28, 91, 92-93

tannlegesekretærskolen, 20, 90, 136
tannpleier, 89-90, 137
tannpleiereksamen, 41
tanntekniker, 20
teacher training, 28, 37, 56, 60, 62, 67-73; 130-132
teaching ranks, 71
technical and industrial subjects, 8, 10, 12-13, 15, 16, 17, 122, 124
tekniker, 20, 22
teknisk fagskole, 22, 25, 73, 76, 124
teologisk embetseksamen, 107, 108
theater, 86, 135
theology, 29, 37, 106-108, 109, 110, 145
titles, 116. *See also* specific programs
tolk, 49, 87, 88, 136
tourism administration, 97, 141
transcripts, 85, 116, 117
transfer, 28-29, 85, 87, 98, 101, 111, 113
transfer credit, 27, 89, 100, 109, 117. *See also* specific institutions and programs and placement recommendations
trener, 102, 144
Tromsø maritime høgskole, 78, 80, 81
Trondheim ingeniørhøgskole, 77, 78, 79, 80
tuition, 26

university sector, 27, 28, 36; admission 29, 31, 113; degrees, 29, 31, 35, 36, 37; examinations, 33-34, 37
Universitetet i Bergen, 28, 33, 60, 74, 77, 79, 89, 90, 94, 98-99, 103, 106, 108
Universitetet i Oslo, 20, 28, 31, 33, 35, 36, 48, 60, 69, 72, 77, 84, 88, 89-90, 94-95, 96, 98, 99, 103, 106, 107, 114
Universitetet i Tromsø, 28, 33, 51, 62, 74, 77, 81, 90, 94, 96, 98, 99, 103
Universitetet i Trondheim, 28, 33, 34, 48, 72, 77, 84, 90, 103, 106, 108

Varehandelens høyskole, 67
vekttall, 32, 44, 116
vernepleier, 49, 91, 106, 145
vernepleierhøgskole, 28, 91, 105, 106
Vestfold College, 52-53
Vestlandets kunstakademi, 83
veterinary medicine, 29, 36, 37, 96-97, 107
videreutdanning, 45, 46, 48, 50, 104-106
videregående kurs I, II, III, 9, 11, 16, 17, 18, 20, 121-124
videregående skole, 3, 5, 11, 73, 116, 121
vitnemål, 85, 99, 102, 111, 135, 142
vitnemål for ... etter ... fullført studium, 83, 134
vitnemål fra den videregående skolen, 6, 7, 21, 22, 24, 25, 29, 116, 121, 122, 123, 124
vitnemål fra statens næringsmiddeltekniske høgskole, 95
vitnemål om: adjunktutdanning, 71; *allmennlærerutdanning*, 66-67, 70, 116; *barnevernspedagogeksamen*, 104, *faglærerutdanning*, 67, 116; *kommunalkandidateksamen*, 104, 144; *sosionomeksamen*, 104
vitnemål om halvårs- og årsenheter, 70
vitnemål om 3-årig bioingeniørutdanning, 87; *ergoterapeututdanning*, 87,116; *fysioterapeututdanning*, 87; *ortopediingeniørutdanning*, 89; *radiografutdanning*, 89
vitnesbyrd, 108
vocational education, 5-6, 122-124
vocational teachers, 43, 49, 66, 67, 68, 69, 70, 109

x-ray therapy, 89

yrkeslærer, 49, 70

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